



# LIVING OUR VALUES

through our people, products and practices



Strengthening communities

Improving fuel economy, reducing emissions



Setting goals to protect resources



**SUSTAINABILITY REPORT 2013-2014**





# TABLE OF CONTENTS

## INTRODUCTION

A note from the chairman .....	4
Cummins around the world.....	6
Who we are .....	8
How we do it .....	9
Our history.....	10
Vision, mission, values and principles .....	12
Our key tools.....	13
Our recognition.....	14

## SUSTAINABLE FUTURE

Sustainability plan next step in Cummins' environmental journey .....	16
Cummins teams up with other companies to deliver for customer.....	22
Tech center in India to introduce new reality at Cummins.....	24

## ENVIRONMENT

<b>Products .....</b>	<b>26</b>
Cummins makes big moves in pickup, light truck markets.....	36
Cummins' testing center keeps new generators hush, hush .....	38

## Practices..... 40

Cummins strives to reach new 'Zero Disposal' challenge.....	50
Cummins water conservation critical to environmental and business sustainability .....	52
Energy Champions hunt for savings...	54

## Partnerships and policy ..... 56

Cummins participates in discussions around GHG and fuel consumption regulations .....	62
'SuperTruck' makes big impression ...	64
Cummins Energy Solutions Business transforms lives through energy .....	66
Dairy and tourist attraction uses cow power to fuel Cummins engines.....	68

## CORPORATE RESPONSIBILITY

Cummins employees set new record while making a difference around the world .....	70
Cummins challenge pays off for the environment.....	73
Environmental Challenge winners .....	78
Cummins Power Generation assists people with disabilities around the world .....	80

A grandmother's cooking launches global environmental project .....	83
Reinventing youth who lost their way.....	86
Update: Building support for bringing technical education to students .....	88
Cummins employees in China inspire rural students through books.....	90
Cummins creates model villages in India .....	92
He quietly builds stronger communities .....	94
Child development is this Baker's recipe .....	95
Cummins philanthropy: supporting employee passions and skills.....	96
Foundation leadership .....	102

## SAFETY

Cummins' push for health and safety includes work, home and community.....	104
Cummins says leaders must make health and safety personal .....	108
Contractor screening enhances health and safety at Cummins.....	110
Defibrillators save lives at Cummins.....	112

## RIGHT ENVIRONMENT

Leveraging the power of diversity.....	114
Cummins speaks out for diversity ....	119
The social side of engineering.....	120
Today, he is building a better life at Cummins.....	122
Diversity procurement at Cummins is a bottom-line strategy .....	124
Helping employees succeed is key goal at Cummins.....	126

## GOVERNANCE

Cummins updates Supplier Code of Conduct .....	128
Cummins' Board of Directors oversees the Company.....	132
Risk management key to sustainability.....	134
Keeping Cummins 'Safe. Sure. Secure.' .....	135
Government relations and political activity.....	136

## FINANCIAL

Cummins creates shareholder value in 2013.....	138
Sustainability report disclosures.....	141

## A NOTE FROM THE CHAIRMAN

*Welcome to the 2013-2014 Sustainability Report, which this year celebrates our six core values: Integrity, Innovation, Delivering Superior Results, Corporate Responsibility, Diversity and Global Involvement.*

Our leaders have embraced these values to guide the Company in good times and bad. Just since their adoption in the year 2000, they have helped Cummins successfully navigate multiple recessions, tremendous technological changes in our industry and the advent of fierce global competition.

Cummins' values provide us with a foundation that enables our Company to look at challenging times not as a moment to stand still, but rather as an opportunity to position ourselves for a bright future, relying on our values to guide us more than ever.

Collectively, they are integral to everything we do, rooted in a 95-year tradition of partnering in our customers' success by providing innovative solutions to their power needs.

This year's report features many examples of Cummins living its values, including:

» **INTEGRITY:** Cummins has significantly expanded its Environmental Sustainability Plan to look at our product design, products in use and other facets of our environmental footprint to see where we can make a positive impact. The plan includes goals for reducing our use of water and energy and for increasing recycling. Our goals are clear and measurable to drive innovation and collective action, consistent with our Integrity value to do "what is right and what we say we will do." (page 16).

» **INNOVATION:** The Company in 2013 introduced more than 70 new or improved products, launching several new engines for everything from pickup and light-duty trucks to our new G Series heavy-duty engine platform now in production in China for on- and off-highway use. We want to provide our customers with a range of products to

help them succeed in their businesses and meet their own sustainability goals (page 26).

» **DELIVERING SUPERIOR RESULTS:**

Our Company was in the news earlier this year when the Cummins-Peterbilt "SuperTruck" achieved 10.7 miles per gallon under real world driving conditions, and significantly exceeded the Department of Energy's goal for freight efficiency (page 64). The concept tractor-trailer demonstrated what's possible to customers, regulators and the transportation industry as participating companies now work to commercialize many of its features.

» **CORPORATE RESPONSIBILITY:**

Cummins employees set a new record for reducing greenhouse gas emissions as part of the Company's 2013 Environmental Challenge. Community service projects completed as part of the Challenge reduced greenhouse gas emissions by 19,000 tons, more than four times the amount reduced in 2012 (page 70).



» **DIVERSITY:** Diversity at Cummins is essential to our future and Cummins wants to ensure we have an inclusive work environment that welcomes people of both genders and all races, ethnicities, sexual orientations and other characteristics. Cummins is disclosing in this year's report additional information about our workforce and our efforts to increase diversity and inclusiveness (page 114). We believe a diverse workforce is critical to creating the right work environment for success.

» **GLOBAL INVOLVEMENT:** As Cummins inaugurated our eighth business at the Company's Megasite in Phaltan, India, Cummins' Model Village initiative in nearby Nandal (page 92) continued to demonstrate our commitment to Global Involvement, taking a world view and acting without boundaries. Since 2011, Nandal has seen significant improvements in its access to water and health care as well as improvements in sanitation and agriculture.

I'm proud to say our commitment to these values did not waiver despite weak global economic conditions for a second consecutive year.

We take a broad view of sustainability at Cummins, maintaining it's about more than

a Company's environmental record or the number of community involvement activities it participates in, although those are both important.

A truly sustainable company has to work to keep its most valuable asset, its employees, healthy and safe (page 104). A sustainable company needs outstanding leaders and programs to develop those leaders (page 126). It must be financially sound (page 138). And a truly sustainable company is built on a foundation of good governance (page 128) to ensure the kind of ethical behavior that's critical to creating not only a great work environment but also terrific customer service.

I'm convinced we have all of those pieces in place at Cummins and it's one of the reasons I'm so optimistic about the future. But sustainability can slip away the moment you let yourself become complacent. That's why I'm pushing hard for our Company to be a leader in all of these areas.

Thank you for your interest in Cummins.



**Tom Linebarger**

Chairman and Chief Executive Officer  
Cummins Inc.



*Linebarger has been working at Cummins for more than 20 years. Here's a quick look at his career at the Company.*

**CHAIRMAN AND CHIEF EXECUTIVE OFFICER**

Jan. 1, 2012, to present

**PRESIDENT AND CHIEF OPERATING OFFICER**

2008-2011

**EXECUTIVE VICE PRESIDENT, PRESIDENT –  
POWER GENERATION BUSINESS**

2005-2008

**VICE PRESIDENT – POWER GENERATION**

2003-2005

**VICE PRESIDENT AND CHIEF FINANCIAL OFFICER**

2000-2003

**VICE PRESIDENT – SUPPLY CHAIN MANAGEMENT**

1998-2000

**MANAGING DIRECTOR –  
HOLSET ENGINEERING COMPANY**

(a division of Cummins), 1997-1998

**SENIOR MANAGER – ENGINEERING OPERATIONS  
AND TECHNICAL CENTER LEADER, HOLSET**

1996-1997

**ENGINE COMPANY ASSISTANT TO GROUP  
VICE PRESIDENT FOR WORLDWIDE OPERATIONS,  
PROGRAM MANAGER – ADVANCED FUEL SYSTEMS**

1994-1996

**INTERNSHIP – ASSISTANT TO PLANT MANAGER,**

Columbus MidRange Engine Plant, 1992

# CUMMINS AROUND THE WORLD

*Cummins is a global company. Here's a look at some of what was happening at the Company around the world in 2013-2014.*

● This map includes Cummins plants, offices and distributors.

## UNITED STATES

Lisle, Illinois – Navistar International Corporation announced on Sept. 3, 2013, that it was expanding its medium-duty engine offerings to include the Cummins ISB 6.7-liter engine for trucks and school buses. Production for trucks started in 2013 while production for school buses was scheduled in 2014.

## UNITED KINGDOM

Cummins Turbo Technologies in Huddersfield completed a geothermal energy project in 2013, cutting its electricity consumption and reducing its reliance on the national grid. The system harvests absorbed solar heat stored in the outermost layer of the earth.

## UNITED STATES

Columbus, Indiana – Cummins was named recipient of the 2013 Newsmaker of the Year award Jan. 9, 2013, from Diesel Progress North American magazine. The award honors the company that made the most news in the heavy-duty industrial engine and equipment markets during the calendar year.

## MEXICO

Cummins Filtration at San Luis Potosí, Mexico, received Clean Industry certification Aug. 30, 2013, from the Federal Environmental Protection Agency (PROFEPA). The certification was presented at a formal event held at Cummins Filtration.

## ARGENTINA

Cummins ISZ13 diesel engines were installed in trucks driven by team Ginat Rally Power for the Dakar rally, Jan. 5 – Jan. 18, 2014, across Argentina, Chile and Bolivia. The Company started a three-year project with the team to develop a new rally truck platform that is lighter and more maneuverable.

## BRAZIL

Both MAN and Ford exhibited trucks powered by Cummins engines at Fenetrán, the most important showcase for the on-highway sector of freight transportation and commercial vehicles in South America. The show started Oct. 28, 2013, in São Paulo.



## BELGIUM

Cummins officials announced in October of 2013 that the latest ISB6.7 engines will be supplied to Scania for use in its Euro 6 buses. The October 2013 announcement came at Busworld in Kortrijk, Belgium, the largest bus and coach exhibition in Europe. Euro 6 is the latest European emissions standards.

## CHINA

Cummins announced in September, 2013, that it will begin producing a new global heavy-duty engine platform in China that will meet a variety of on-highway and off-highway needs. The platform will initially be manufactured at the Beijing Foton Cummins Engine Company in 2014.

## AUSTRALIA



## BRAZIL



## INDIA



## MEXICO



## UNITED STATES



## INDIA

Cummins opened its fifth, sixth and seventh plants at the Megasite in Phaltan, India, in 2013, and another plant in early 2014. The Megasite is a 300-acre facility expected to be home to 10 Cummins facilities.

## DUBAI

Cummins' new Middle East Area Business Organization became effective in January of 2014, providing the structure needed to expand and grow in this key market. The new organization will be structured to foster better alignment between the various business units at Cummins.

## AUSTRALIA

Cummins Filtration Australia held a launching ceremony in December, 2013, to mark the production of two different NanoForce air filters at the business unit's Melbourne, Victoria plant. The Nanofiber air filters offer a longer life and lower operating costs.

## WHO WE ARE

*Cummins Inc., a global power leader, is a corporation of complementary business units that design, manufacture, distribute and service engines and related technologies, including fuel systems, controls, air handling, filtration, emission solutions and electrical power generation systems.*

<b>WORLD HEADQUARTERS</b> 500 Jackson Street Columbus, IN, 47201	<b>STOCK SYMBOL</b> (traded on NYSE) <b>CMI</b>	<b>FOUNDED IN 1919</b>  <b>WEB SITE</b> www.cummins.com	<b>FORTUNE 500 RANKING</b> (2014) <b>168</b>
<b>SALES / EARNINGS</b>  In 2013, Cummins earned <b>\$1.48 billion</b> on revenues of <b>\$17.3 billion.</b>	<b>EMPLOYEES</b> Worldwide, approximately <b>48,000 people.</b> More than 60 percent of the Company's employees are located outside the United States.	<b>CUSTOMERS</b> The Company's customers are located in approximately <b>190 countries</b> and territories that Cummins reaches through a network of more than <b>600</b> Company-owned and independent distributor locations and approximately <b>6,500 dealer locations.</b>	

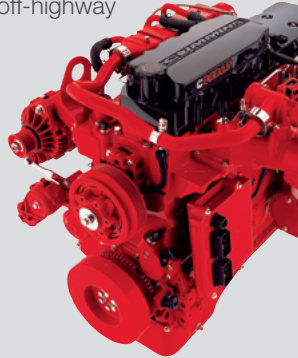


# HOW WE DO IT

*Cummins is organized into four business units:*

## CUMMINS ENGINE BUSINESS

The Engine Business manufactures and markets a complete line of diesel and natural gas-powered engines for on-highway and off-highway use. Markets include heavy- and medium-duty trucks, buses, light-duty trucks and industrial uses such as agricultural, construction, mining, marine, oil and gas and military equipment.



## CUMMINS POWER GENERATION BUSINESS

Power Gen is a global provider of power generation systems, components and services in standby power, distributed power generation, as well as auxiliary power in mobile applications. It also provides a full range of services including long-term operation and maintenance contracts and turnkey and temporary power solutions.



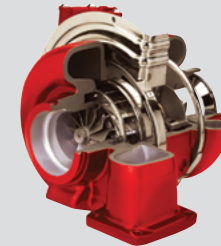
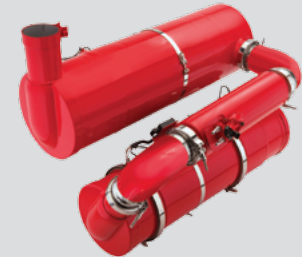
## COMPONENTS BUSINESS

**Cummins Emission Solutions** designs and manufactures exhaust aftertreatment technology and solutions for the medium- and heavy-duty, and high-horsepower engine markets.

**Cummins Filtration** designs and builds heavy-duty air, fuel, hydraulic and lube filtration, chemicals and exhaust system technology products.

**Cummins Fuel Systems** manufactures new fuel systems.

**Cummins Turbo Technologies** designs and builds turbochargers to boost engine power and related products.



## CUMMINS DISTRIBUTION BUSINESS

Cummins Distribution sells and services the full range of Cummins products for over 20 application segments in over 190 countries around the globe.



*Cummins has a rich history, replete with examples of innovation, entrepreneurship and vision, mixed with just a little bit of drama at some key moments.*

*Here's a look at some highlights over the last 95 years:*

# OUR HISTORY

Clessie Cummins creates the Cummins Engine Company based in Columbus, Indiana. William G. Irwin, who employed Cummins as a driver, supplies nearly all of the \$50,000 in startup capital.

**1919**

Cummins takes Irwin for a ride in a used Packard limousine that he equipped with a diesel engine on Christmas Day, convincing Irwin of the engine's potential. Irwin invests a much needed infusion of cash.

**1929**

Cummins barnstorms across the country, demonstrating the power and fuel efficiency of the diesel engine in his Coast to Coast Cummins Diesel Test Bus.



**1932**

**1937**

Cummins earns its first profit.

**1934**

J. Irwin Miller, great-nephew of W.G. Irwin, becomes general manager of Cummins at the age of 24.

**1944**



Miller becomes Executive Vice President of Cummins.

**1945**

Clessie Cummins leaves Cummins and moves to California where he continues inventing until his death in 1968.

**1951**

Miller becomes Chairman of the Cummins Board.

Miller is commissioned as a lieutenant in the Navy Air Corps, where he served aboard the carrier Langley during World War II. He saw action in the Marshall Islands and New Guinea.

**1942**



**1962**

Cummins begins operations in India, first as a joint venture with one plant in Pune. Today, the Company owns all or part of 20 manufacturing facilities in the country and employs nearly 14,000 people.

**1973**

Cummins acquires Holset, a British turbocharger manufacturer. Turbochargers today play a key role in a number of engine functions.

**2012**



President and Chief Operating Officer Tom Linebarger takes over as the Company's Chairman and CEO on Jan. 1, 2012.

**1963**

Miller helps Dr. Martin Luther King, Jr. with some of the organizing behind the 1963 March on Washington. Miller was acting as leader of the National Council of Churches.

**1975**

Cummins enters China as part of a deal involving heavy construction equipment with Cummins engines.

**2000**

Cummins establishes its Mission and Values around its Vision of "Making people's lives better by unleashing the Power of Cummins."

Miller lays out his thinking on Corporate Responsibility in Cummins' 1972 Annual Report. "While some still argue that business has no social responsibility, we believe that our survival in the very long run is as dependent upon responsible citizenship in our communities and in the society as it is on responsible technological, financial and production performance."



**1972**

Cummins purchases 86 percent of the Onan Corporation in suburban Minneapolis, which would become the basis for its Power Generation Business.

**1986**

Miller retires as Chairman of the Board, although he remains active with the Company until his death in 2004.

**1977**

Chairman and Chief Executive Officer Tim Solso retires after more than 40 years with the Company including more than 10 years as CEO. The Company experienced record growth under his leadership.

**2011**

# VISION, MISSION, VALUES AND PRINCIPLES

## OUR VISION

*Making people's lives better by unleashing the Power of Cummins.*

## OUR MISSION

**We unleash the Power of Cummins by:**

- » Motivating people to act like owners, working together.
- » Exceeding customer expectations by always being the first to market with the best products.
- » Partnering with our customers to make sure they succeed.
- » Demanding that everything we do leads to a cleaner, healthier, safer environment.
- » Creating wealth for all stakeholders.

## OUR PERSONALITY

Decisive. Driven to win.

Agile. Passionate. Caring.

## OUR VALUES

**INTEGRITY** // Strive to do what is right and what we say we will do.

**INNOVATION** // Apply the creative ingenuity necessary to make us better, faster, first.

**DELIVER SUPERIOR RESULTS** // Exceed expectations consistently.

**CORPORATE RESPONSIBILITY** // Serve and improve the communities in which we live.

**DIVERSITY** // Embrace the diverse perspectives of all people and honor both with dignity and respect.

**GLOBAL INVOLVEMENT** // Seek a world view and act without boundaries.

## OUR STRATEGIC PRINCIPLES

**Leverage Complementary Businesses** // Cummins is a family of complementary businesses that create value for our customers by leveraging relationships and applying innovative technology across business boundaries.

**Increase Shareholder Value** // Cummins' financial success is measured by growth in shareholder value. We will focus on ROE / ROANA and Earnings Growth (not Revenue Growth) as the principal drivers of shareholder value.

**Seek Profitable Growth** // Cummins will seek profitable growth by leveraging our assets and capabilities to grow in market segments with favorable industry dynamics and where Cummins can establish an advantage.

**Relentlessly Pursue Cost Leadership** // Cummins will pursue an operational strategy of cost leadership.

**Lead in Critical Technologies** // Cummins will be the market leader in technologies most critical to our customers' success and our Company's performance.

**Create the Right Work Environment** // Cummins will assure that the physical and cultural work environment is conducive to excellent performance and continuous improvement.

# OUR KEY TOOLS

*Cummins is a company with operations across the globe. To help ensure Cummins operates smoothly, the Company relies on three primary tools:*

## SIX SIGMA

Cummins is a big proponent of Six Sigma, using the business improvement tool to save the Company and its customers billions of dollars.

Since it was initiated at the Company in 2000, Six Sigma has provided a common process and language for Cummins employees to solve problems and develop new products and processes.

Six Sigma uses data-based analysis to identify defects and variation in a wide range of manufacturing and business situations.

Here's a quick look at what Six Sigma has meant to Cummins:

- » As of the end of 2013, approximately 15,000 people have been trained how to use Six Sigma tools at the Company since the process was introduced at Cummins in 2000.
- » An estimated \$5.19 billion in savings have been identified at the Company through

Six Sigma since it was started at Cummins 14 years ago.

- » An estimated \$919 million has been saved by Cummins customers using Six Sigma since 2005.

The Company also uses Six Sigma in its community involvement work, helping its community partners improve their efficiency and address major problems. In 2013, Cummins employees completed 156 Community Impact Six Sigma Projects, up from 106 in 2012.

## CUMMINS BUSINESS MODEL

The Cummins Business Model is a simplified view of how the Company is organized that starts and ends with customers and the business.

The business model was updated in 2013 to more accurately reflect how Cummins delivers products and services to our customers around the world through an integrated supply chain. The new model more clearly represents how we work together to meet or exceed customer expectations.

## CUMMINS OPERATING SYSTEM

The Cummins Operating System helps develop common practices and approaches to improve customer satisfaction. The 10 practices are:

- 01** Put the customer first and provide real value.
- 02** Synchronize flows  
(material, physical and information).
- 03** Design quality in every step of the process.
- 04** Involve people and promote team work.
- 05** Ensure equipment and tools are available and capable.
- 06** Create functional excellence.
- 07** Establish the right environment.
- 08** Treat preferred suppliers as partners.
- 09** Follow common problem-solving techniques.
- 10** Use Six Sigma as the primary process improvement method.

# OUR RECOGNITION

*Cummins received recognition in several areas that touch on sustainability.*

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## CORPORATE RESPONSIBILITY / ETHICS

Cummins was named one of the **WORLD'S MOST ETHICAL COMPANIES** by the Ethisphere Institute in 2014. The institute evaluates companies' commitment to ethical leadership, compliance practices and corporate responsibility. This was the seventh consecutive year Cummins was named to the list.

Cummins China was recognized as a **LEADING ENTERPRISE IN CORPORATE SOCIAL RESPONSIBILITY** in 2013 for its work in 2012 by the prestigious GoldenBee Corporate Social Responsibility China Honor Roll. The honor roll was launched by a Chinese magazine and the country's Ministry of Commerce to promote corporate social responsibility in the country.

Cummins India was honored in 2013 with the prestigious **B.G. DESHMUKH AWARD** for outstanding work in the field of Corporate Social Responsibility. It's the second time since the award was created six years ago that Cummins India was honored. The award is given by the Maharashtra Chamber of Commerce, Industries and Agriculture (MCCIA), for significant efforts in improving communities.

Cummins Power Generation in Fridley, Minnesota was awarded the **2013 MINNESOTA EMPLOYEE ENGAGEMENT AWARD** for its work with people who have disabilities. Employees adapt toys and electronic devices at a center that serves people with disabilities.

Cummins in 2014 was named to Fortune Magazine's list of the **WORLD'S MOST ADMIRABLE COMPANIES FOR THE CONSTRUCTION AND FARM MACHINERY SECTOR**. The magazine calls its list "the definitive report card" on corporate reputations. The magazine's survey partner reviews some 1,400 companies. Cummins did not make Fortune's top 50 list.

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## ENVIRONMENT

MEMBER OF  
**Dow Jones  
Sustainability Indices**  
In Collaboration with RobecoSAM 

Cummins was named to the **DOW JONES SUSTAINABILITY INDEX** in 2013 for a ninth consecutive year. The index represents the top 10 percent of the world's most sustainable companies as ranked by Dow Jones over a range of economic, environmental and social responsibility factors.

Tata Cummins Limited – Jamshedpur was named a silver award winner for the automotive sector at the **14<sup>TH</sup> ANNUAL GREENTECH AWARDS** in 2013. The Greentech Awards recognize "the highest level of commitment" to Environmental Management and Corporate Responsibility.



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## FINANCIAL / PRODUCTS



Cummins was named **2013 NEWSMAKER OF THE YEAR** by Diesel Progress North American magazine. The award, first given in 1997, honors the company, person, product, technology or industry trend that made the most news in the heavy-duty industrial engine and equipment markets during the calendar year. This is the third time that Cummins has been given this honor.

Cummins received first place in Institutional Investors' **2014 ALL AMERICAN EXECUTIVE TEAM** rankings. The rankings are based on a survey of portfolio managers and sell-side analysts who are asked to name the best CEOs, CFOs and investor relations professionals at the U.S. companies they cover.

Cummins Australia received PowerTorque magazine's **2013 TECHNOLOGY AND INNOVATION AWARD** for its work in heavy-duty truck engine development. PowerTorque is a leading Australian trucking publication. It said Cummins received the award for the ISXe5, which was added to the heavy-duty engine lineup in the South Pacific.

Cummins was ranked at the top of the Motley Fool website's 2013 list of the **25 BEST COMPANIES IN AMERICA**. The website evaluated companies for their success in "serving investors, customers, employees and the world at large."

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## WORKPLACE / DIVERSITY



Cummins was awarded a perfect score for the ninth consecutive year in the **2014 CORPORATE EQUALITY INDEX** by the Human Rights Campaign, the largest U.S. civil rights organization for lesbian, gay, bisexual and transgender employees. The Company was recognized for offering equivalency in spouse and partner benefits, health coverage for transgender individuals and more.

Cummins was named one of the **TOP 50 COMPANIES FOR DIVERSITY** by DiversityInc magazine for an eighth consecutive year in 2014. Cummins ranked 15th on the magazine's list for a second year in a row.

## SUSTAINABLE FUTURE

# SUSTAINABILITY PLAN NEXT STEP IN CUMMINS' ENVIRONMENTAL JOURNEY

*After nearly two years of study, Cummins has adopted a comprehensive plan to reduce the Company's environmental footprint, addressing everything from its manufacturing operations to Cummins' engines and generators in use.*

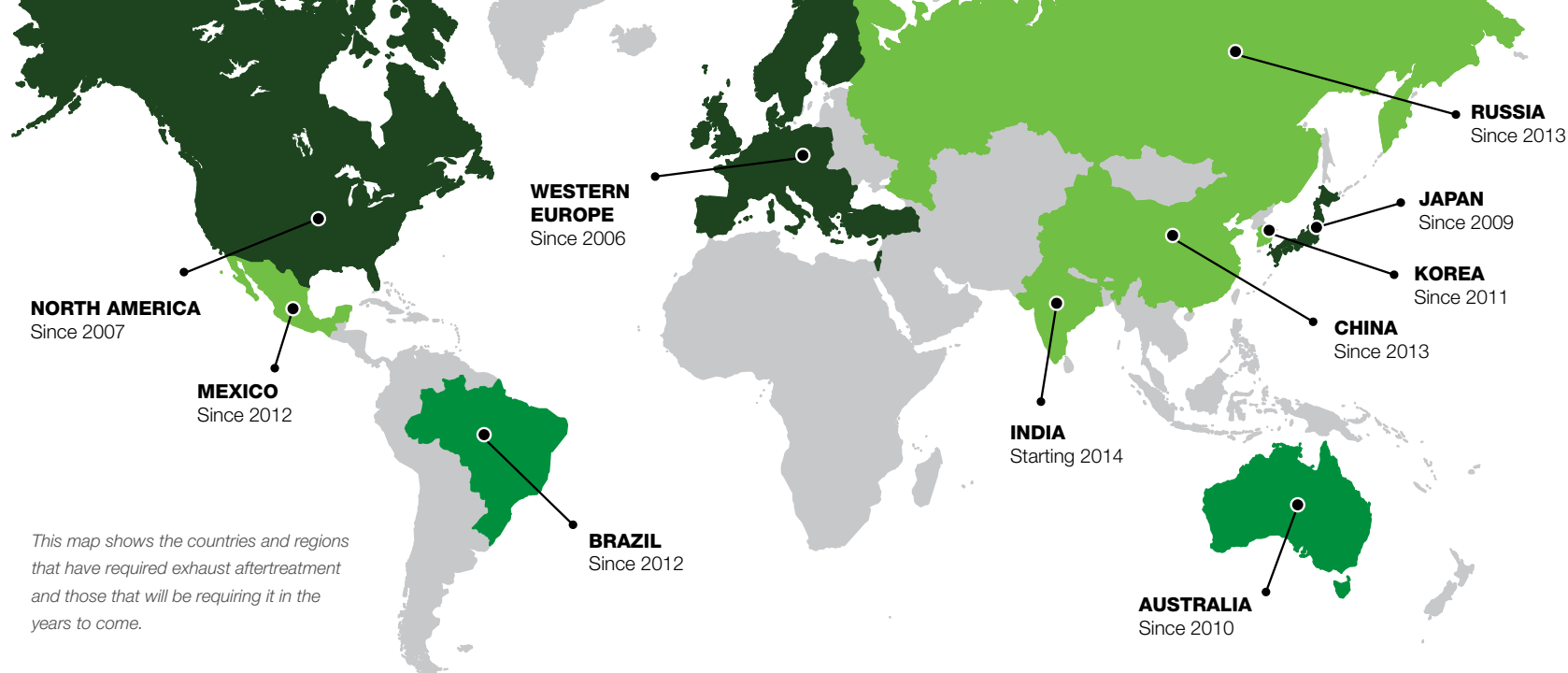
In areas where Cummins has the most influence, such as the Company's plants and internal supply chain, the plan calls for immediate action. It establishes specific, measurable goals by 2020 for the Company to reduce the water and energy it uses and the waste it disposes.

In other areas, such as the Company's products in use – the overwhelming majority of Cummins' environmental footprint – the plan commits the Company to working collaboratively with a variety of stakeholders to make a positive environmental impact while delivering economic value to its customers.

Cummins has been working hard to reduce its environmental footprint for years, with a



Cummins Chairman and CEO Tom Linebarger talks about the expanded plan before students at Purdue University in West Lafayette, Indiana. Seated on the first row, far right, is university President Mitch Daniels, the former governor of Indiana.



special focus over the last decade on waste, water and energy. The Company produces the cleanest engines and generators in the industry and has been engaged with communities on environmental issues through programs like the Environmental Challenge (page 73).

But this is the most comprehensive plan the Company has put together and it comes as many consumers at the click of a computer mouse can get goods delivered to their door overnight, if not in a matter of hours. Cummins powers the trucks, trains and other forms of transportation that help make those deliveries possible. In some cases, the Company's generators even power the factories producing the goods.

Cummins, however, recognizes that in the midst of these amazing times there is growing concern

about the air, water and land all of us depend on. The Company wanted a plan to help guide it as Cummins delivers the power our customers need in an increasingly interconnected world in a way that protects the natural resources we all share.

"With millions of engines and generators in service, and customers in 190 countries and territories, there's no question in my mind that Cummins has the global reach to make a positive impact on the environment," said Chairman and Chief Executive Officer Tom Linebarger.

"Many of our employees are already doing this through the products they design and the processes they follow," he added.

"This is just the next step in fulfilling our vision of making people's lives better by unleashing the power of Cummins."

## OUR SUSTAINABILITY JOURNEY

Cummins has long embraced "green" practices like its remanufacturing operations, which today keep some 50 million pounds of Cummins product in use and out of landfills annually.

But as recently as the 1990s, the Company shared the industry held belief that newly proposed clean air regulations in the United States would be impossible to meet.

Cummins leaders concluded, however, that their opposition was inconsistent with the Company's long-held values. They began to see Cummins' technical expertise as a key competitive advantage to meet increasingly stringent regulations.

## MAKING THE CONNECTION

The work behind the new Cummins Connect Series of generators is another example of greater design efficiency and ultimately sustainability.

Technical advances in engine speeds combined with the use of turbochargers and other developments enabled engineers to use the same basic engine platform to design 12 different variations of the standby generators, producing from 20 kilowatts (kW) to 60 kW of power.

Engineers were able to use the Company's Acoustical Testing Center in Fridley, Minnesota (page 38), to test many different combinations to ensure the generators, which run on natural gas or propane, meet customer demands for quiet operation. When the diesel version is complete, the number of potential part numbers for the series will have been reduced from around 4,300 to just 1,300, lowering production costs and improving ease of maintenance.

The combination of the higher engine speed and design changes also allowed the team to reduce the weight significantly – a more than 1,000 pound reduction for the Connect Series' largest unit compared to similarly sized generators. While weight isn't a big factor in generator sales, it does mean less material, water and energy is used in processing.

As more countries established air pollution standards, customers wanted the environmental attributes Cummins products delivered with the power and reliability they offered to help them compete and win.

Today, Cummins spends more than \$500 million annually to develop the technology necessary to reduce emissions and improve fuel efficiency. The Company also works with governments around the world to establish responsible regulations.

Most recently, Cummins helped to develop the first greenhouse gas (GHG) emission regulations for commercial trucks in the United States and was the first company to have an engine certified to meet those regulations, which went into effect in 2014.

The Company created the Action Committee for Environmental Sustainability (ACES) in 2012 to study Cummins' environmental footprint, working with a private consultant and the Massachusetts Institute of Technology to determine where the Company could make the biggest positive environmental impact. Then, ACES put together the plan.

"We know our best sustainability initiatives come when our vision, mission and values align with our business strategy to deliver value to our customers," Linebarger said.

## PRODUCT DESIGN

About 70 percent of a product's environmental footprint is locked in at the design stage, according to the U.S. Environmental Protection Agency. The Company's sustainability plan establishes designing for innovation as a key goal, with a focus on the efficient use of fuel and raw materials.

The Company can build on many successes. In February, the President of the United States praised the concept "SuperTruck" developed by Cummins and the Peterbilt Motors Company, which during testing under real world conditions achieved a 75 percent increase in fuel efficiency compared to a typical truck on the road today (page 64).

The tractor-trailer includes a high tech engine with a waste-heat recovery system, an aerodynamic exterior and other energy saving features that the participating companies will now work to commercialize.

Cummins' new G Series engine (page 27) is another example of a sustainable product design. A key focus for the heavy-duty engine platform has been achieving significant weight reductions. A sculpted block retains high rigidity while removing unnecessary mass. The use of composite material for the oil pan and valve cover provides further weight reductions.





*President Barack Obama praises the Cummins-Peterbilt "SuperTruck" while calling for the next phase of national fuel efficiency and greenhouse gas emission standards for heavy-duty commercial vehicles. Cummins' environmental sustainability plan calls for the Company to continue to design for innovation.*

For nearly 10 years, Cummins has used Six Sigma, the business problem-solving tool, to help customers operate their Cummins equipment more efficiently, saving them more than \$1 billion since 2005. About 90 million gallons of fuel has been saved and more than one million tons of carbon dioxide (CO<sub>2</sub>) has been avoided.

Now, the Company is expanding its efforts, working with other companies to help customers realize millions in savings through greater fuel efficiency (page 22).

## **RAW MATERIALS AND PROCESSING**

Another area that holds tremendous potential for Cummins to work collaboratively is in raw materials and processing.

Like many companies today, Cummins increasingly relies on independent suppliers to provide it with the metals, other raw materials and some parts the Company needs.

The parts and processes connected with Cummins' external supply chain require significant amounts of energy, water and raw materials.

Cummins is poised for more innovation.

The Company's new technical center under construction in India, for example, will be the first at Cummins designed from the ground up to handle alternative fuels (page 24). It will also be the first tech center to make significant use of virtual reality.

## **PRODUCTS IN USE**

Cummins' biggest challenge will be to make a positive environmental impact when its products are in the hands of its customers.

The Company's independent analysis estimates that more than 95 percent of Cummins' total

environmental footprint comes when its products are hauling freight, moving dirt, powering buildings, or in some way in use.

The good news is there may never have been a better time for the Company to engage with its customers to make a positive difference on the environment. With diesel emissions at near zero levels for particulate pollutants, attention is increasingly focused on fuel efficiency.

Cummins' customers can see bottom-line benefits in the push for fuel efficiency. A five percent increase in fuel economy equals a five percent reduction in fuel costs and a roughly five percent drop in GHG emissions.

## ZERO DISPOSAL

While the term “zero landfill” is widely used to mean no trash reaches a landfill, Cummins believes “zero disposal” more accurately describes its goal.

Under Cummins’ definition of “zero disposal,” waste can only be burned as a last resort to create energy and then only if there is a net energy gain, creating more energy than is needed merely to sustain combustion.

For example, 88 percent of the Company’s water footprint can be linked to the extraction and processing of raw materials, according to the independent analysis of Cummins’ environmental footprint.

The plan calls for Cummins to work with its supply chain to reduce the Company’s use of raw materials and packaging, and to share best-practice tools to help suppliers reduce their footprint, which in turn helps Cummins reduce its footprint.

The plan also calls for collaboration between Cummins engineers, manufacturing leaders, material scientists, outside experts and suppliers to use advanced manufacturing processes that require less energy, water, and other natural resources or result in products that are easier to recycle and reuse.

### INTERNAL OPERATIONS

Cummins is establishing its most specific goals in those areas where it has the most influence and experience – its internal operations.

The Company has a large and sophisticated supply chain. Through an improved transportation system, Cummins is determined to reduce the total miles traveled to move shipments across the Company.

Cummins is publicly releasing its goals and will report on the Company’s progress in future Sustainability Reports. (To see how the Company did in all of these areas in 2013, go to the Practices section on page 40).

### *Here are the goals:*

**ENERGY AND GHG:** The sustainability plan calls for reducing energy and GHG emissions at Cummins by 25 and 27 percent, respectively, compared to a 2005 baseline and adjusted to sales, by 2015.

The Company voluntarily pledged a 25 percent GHG emission reduction as part of the Environmental Protection Agency’s Climate Leaders Program in late 2006.

It achieved a 28 percent reduction, but then sold a part of the Company that had eliminated

a significant amount of GHGs. Cummins is now looking for additional savings to meet its goals.

**WATER:** The plan calls for reducing direct water use across the Company by 33 percent by 2020, adjusted for hours worked.

In those areas where water is scarce, the plan also calls for achieving “water neutrality” at 15 manufacturing sites by off-setting water use with community improvements that either conserve water or make new water sources available (page 52).

The plan calls for working with all sites globally to share best practices and institute water conservation processes.

**WASTE:** The plan calls for increasing the Company’s recycling rate from 89 percent in 2013 to 95 percent by 2020, with a special focus on Cummins’ 40 highest waste disposing sites.

In addition, it calls for reaching “zero disposal”

status at 30 sites by 2020 where 100 percent of waste will be recycled in a useful manner.

While the Company’s 89 percent recycling rate compares favorably to many companies, recycling that last 11 percent will mean Cummins’ zero disposal sites must deal with many hard-to-recycle items (page 50).

#### A CALL FOR ACTION

ACES leaders say the new goals are only the beginning. They may add additional specific goals over time.

“It will take a huge effort involving all of our employees’ skills and passion,” said Karen Cecil, Cummins’ Director – Global Environmental Sustainability. “It will mean working not just with our customers and suppliers, but with many external stakeholders, including our communities. It’s something we’ll always be working on as the world changes and new challenges arise.”

#### CUMMINS’ KEY GOALS



## ENERGY AND GHGS

- » *Reduce energy use and greenhouse gas emissions by 25 percent and 27 percent, respectively, compared to a 2005 baseline and adjusted to sales, by 2015.*



## WATER

- » *Reduce direct water use across Cummins by 33 percent by 2020, adjusted by hours worked.*
- » *Achieve “water neutrality” at 15 Cummins manufacturing sites where water is in short supply, also by 2020.*



## WASTE

- » *Increase recycling rate from 89 percent in 2013 to 95 percent by 2020.*
- » *Reach “zero disposal” status at 30 sites by 2020 where 100 percent of waste is recycled in a useful manner.*

#### BEHIND THE NUMBERS

Environmental results are adjusted for sales or hours worked to ensure year-to-year increases or declines aren’t due simply to changes in business volumes.

# CUMMINS TEAMS UP WITH OTHER COMPANIES TO DELIVER FOR CUSTOMER

*Sometimes a good idea is almost contagious.*

When global mining and metals company Rio Tinto said it wanted to explore improving the fuel economy on its fleet of massive mining trucks in Australia, engineers at Komatsu, General Electric and Cummins had already been thinking about the same possibility.

But instead of working separately on how they could make each of their individual parts of the truck more fuel efficient in use, the companies put competitive pressures aside and worked as a team. The team figured out a way to cut fuel use by 4 to 6 percent through adjustments to the engine, drive train and the integration of those systems in the truck.

While that might not sound like a tremendous amount on a percentage basis, each truck in Rio Tinto's fleet is about the size of a two-story house and uses a tremendous amount of fuel. Some were more than five years old.

A 4 percent reduction translates into a potential savings of over \$14 million annually for Rio Tinto's



*A crew stands in front of one of Rio Tinto's huge mining trucks.*

fleet of about 280 mining trucks primarily at the company's mine in Hunter Valley, Australia. And that translates into a savings of about 27,000 metric tons of carbon dioxide (CO<sub>2</sub>) per year.

"The team has worked tremendously well together," said Justin Blomenberg, Chief Engineer – Application Engineering for the High Horsepower Engine Business at Cummins. "We worked with incredible transparency. This kind of approach doesn't happen very often for products that are in use, but I think there's a huge potential for it."





*One of Rio Tinto's mining trucks in action.*

Manufacturers have been working with their direct customers for many years to help them use the equipment they purchase more efficiently and effectively. Cummins, for example, has helped its customers save about \$900 million on their operations since 2004 using the business problem-solving tool Six Sigma. The projects saved about 90 million gallons of fuel and avoided more than 1 million tons of CO<sub>2</sub> emissions.

But the team approach used with Rio Tinto is unusual to improve in-service operations after purchase, and a first on this scale for Cummins in its High Horsepower business.

"Helping our customers meet their own sustainability goals can not only help them save money, it has the potential for tremendous environmental benefits as well," said Dave Lauzun, Cummins' Executive Director – Customer Engineering.

Cummins was interested in testing this approach in its High Horsepower business because of the potential impact. While those engines account for only about 2 percent of the total number of Cummins engines in the world today, they use an estimated 20 percent of the total diesel fuel consumed by Cummins-powered equipment.

The engineering team nicknamed the project "Dhanna Yurabaya," which means to "Stand Strong" in one of the native Wiri languages spoken in the region where the mine is located.

Each company played a key role in the collaboration, including Rio Tinto, which actively participated in goal setting as well as testing the proposed innovations.

Komatsu, the world's second largest construction and mining equipment company, which includes the sales of mining trucks capable of hauling

payloads of 360 tons, focused on the big picture including systems integration.

General Electric, a global technology leader and supplier to the railroad, mining, marine industries and more, was in charge of the electric drive system controls, affecting the entire drive line, from engine to wheel motors.

Cummins, a global power leader, worked on the engine – a QSK60, one of the larger engines in the Company's product line.

Team members from Cummins worked specifically on the calibration of the engine, tuning the calibration's governor settings to work in synch with the GE drive system controls so the engine could operate at lower speeds. Cummins also targeted a one percent increase in fuel efficiency through advances in combustion.

A mining truck doesn't have to go fast, but it does have to go from periods when it's not moving to times when it is pulling a tremendous amount of weight safely through the mine, including up steep grades under full loads and sometimes turning 180-degree corners.

Cummins is now planning a similar project with at least two other High Horsepower customers.

# TECH CENTER IN INDIA TO INTRODUCE NEW REALITY AT CUMMINS

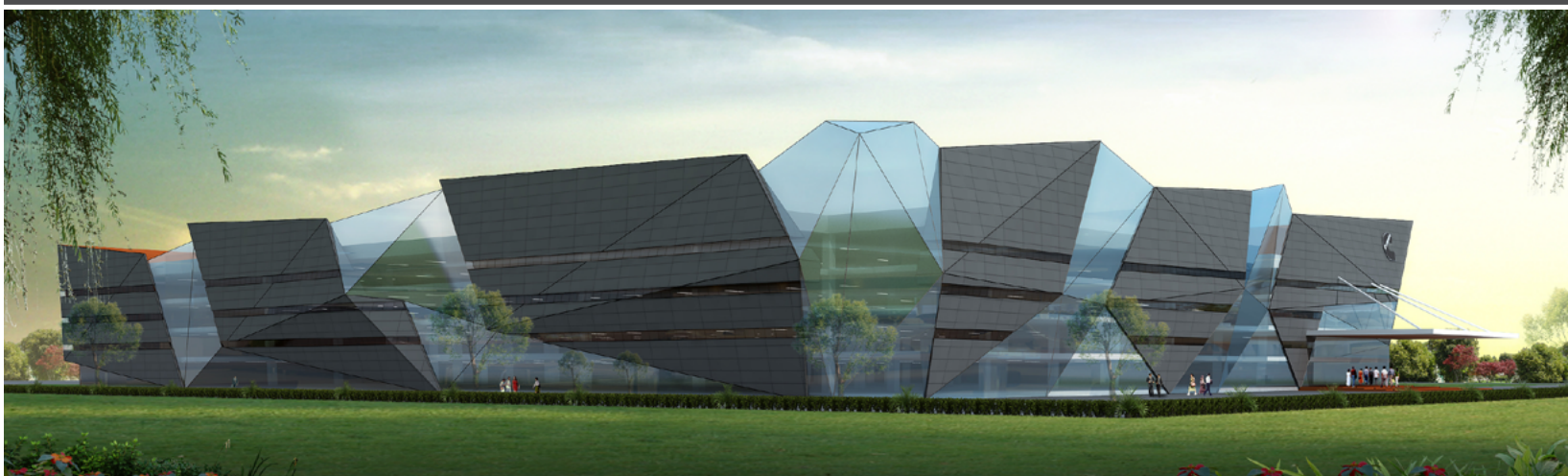
*A typical day at the new Cummins Technical Center India (CTCI) might start with a wave to a colleague from a different department and a stroll to your work station through the futuristic glass and steel building, awash with natural light. Then, it's off to the virtual reality lab to strap on some goggles to see how that emission control system fits on the new engine you have been vetting.*

Almost everything at what will be Cummins' largest and most sophisticated technical center when it becomes operational by the end of 2015 is designed to encourage collaboration, bringing together nearly every Cummins engineer in Pune at one location, more than 2,000 engineers in all.

"I am very excited about the work our talented employees will do at Cummins Technical Center India," Cummins Vice President Dr. John Wall, Chief Technical Officer, said at the groundbreaking for the center in June, 2013. "This new facility will play a significant role in our commitment to 'Innovation You Can Depend On,'

by equipping our people with the best tools and technologies so that they can lead and deliver innovative projects for all of our business units and our customers globally."

*This artist rendering shows the futuristic design of the new Cummins Technical Center India under construction in Pune.*





**TOP** The new tech center in India under construction.

**BOTTOM** Cummins Vice President Dr. John Wall (left), Chief Technical Officer, and Vice President Anant Talaulicar, President of Cummins Components Group and Chairman of Cummins India Ltd., celebrate the groundbreaking for the new Cummins Technical Center India in 2013.

The new center also represents the next step in the Company's efforts to be as environmentally friendly as possible in the way it tests its products. Cummins has been a leader in analysis led design, which uses computers to test ideas before going to the expense of using a prototype in a test cell. That typically uses a significant amount of fuel and creates emissions.

Virtual reality will give Cummins engineers one more tool to test ideas before trying them out using a prototype in a test cell. The new center in India will be the first Cummins technical center equipped with virtual reality. The new center is also being built with the infrastructure to test the use of different kinds of fuels with Cummins products, another potential plus for the environment.

The Company currently has 30 technical centers around the world, including centers in Brazil, China, France, India, Poland, the United Kingdom and Japan. Some of Cummins' technical centers are tied to one of the Company's product divisions such as the Engine Business, Power Generation, Emission Solutions or Filtration. Others work with every business unit.

Dr. Karen Ramsey-Idem, Cummins' Director – Global Technical Resource Planning, says an innovative idea can come from anywhere – a plant, a customer, a technical center or somewhere else. She sees the technical centers' primary role as vetting innovative ideas to determine which ones will work best.

One of the things Ramsey-Idem is most excited about is that the new CTCL will bring together hundreds of engineers who had been previously spread over three campuses in Pune, separated by as much as two hours given the city's traffic challenges.

She envisions informal discussions taking place in the common spaces throughout the new tech center as well as its expansive canteen.

Cummins is the only Company that produces all of the critical subsystems required to build an engine or genset in-house. Getting engineers together from various product areas enables Cummins to take full advantage of that critical difference with its competitors.

It also opens up the possibility of bundling testing to take the fullest advantage of work in a test cell. For example, if an engine is being put through its paces, it might be possible to test a component at the same time, saving time and fuel compared to testing those items separately.

Hélène L. Cornils, Director – Technical Operations Excellence for Components Engineering, is working on a computer program to support testing at the Company. It includes a feature showing an engineer what testing is going on at any of the Company's 227 test cells around the world so they can explore the possibility of joining a colleague's test.

"There's the potential to create significant efficiencies that would be good for business and good for the environment, too," Cornils said.



# LIVING OUR VALUES

INNOVATION  
Apply the creative ingenuity necessary  
to make us better, faster, first.

The Company is committed to providing its customers with products that deliver the power they need to succeed, using the most appropriate emissions control for their particular location and circumstances.

Cummins is the only independent manufacturer with the in-house capability to produce all of the critical subsystems required to build an engine or generator. That gives the Company a distinct advantage when it comes to designing and building the cleanest, most fuel efficient engines and generators in the world.

Meeting emissions regulations in almost every country across the globe has been a critical element in Cummins' success. The Company believes its technical expertise gives it a competitive edge as governments enact stricter regulations to protect the air, land and water.

Cummins, however, also recognizes that its products, above all else, must deliver real

## ENVIRONMENT // PRODUCTS

# PRODUCTS

*Cummins introduced more than 70 new products or product updates around the world in 2013, many addressing emissions, fuel efficiency or both.*

economic benefits to the Company's customers. That includes not only the performance customers have come to rely upon, but reliability, durability, and low cost of ownership, too.

Here's a look at the major environmental sustainability developments in the Company's key business segments over the past year that are helping Cummins' customers meet their own sustainability goals.

## ENGINE BUSINESS

Since engines started being regulated by the U.S. Environmental Protection Agency in the 1970s, emissions have been reduced dramatically. On-highway diesel engines, for example, emit 90 percent less particulate matter (PM) and oxides of nitrogen (NOx) today compared to just a little over a decade ago, reaching near-zero levels.

Significant advances in fuel economy, meanwhile, have greatly reduced the output of carbon dioxide (CO<sub>2</sub>), a key contributor to global warming.

Cummins has been a pioneer in clean diesel technology, producing advances in combustion, electronic controls, fuel systems, filtration, air handling and exhaust aftertreatment to reduce emissions and improve fuel economy.

The Company also worked to improve combustion to help the fuel efficiency of its engines and capture more of the power they generate. And Cummins has been a leader in the development of engines that run on biodiesel, natural gas and other alternative fuels.

Some of the most significant environmental developments in the Engine Business over the past year included:





Wang Jinyu, General Manager of the Beiqi Foton Motor Co., Ltd., China's leading commercial vehicle manufacturer, signs an engine at the launch of a new truck model powered by the Cummins ISG engine at the Cummins Technical Center in Columbus, Indiana. The new G Series engine is initially being produced at the Beijing Foton Cummins Engine Co., a 50-50 joint venture between Cummins and Foton.

## HEAVY-DUTY AND MEDIUM-DUTY ENGINES

### G Series

#### WHAT'S NEW:

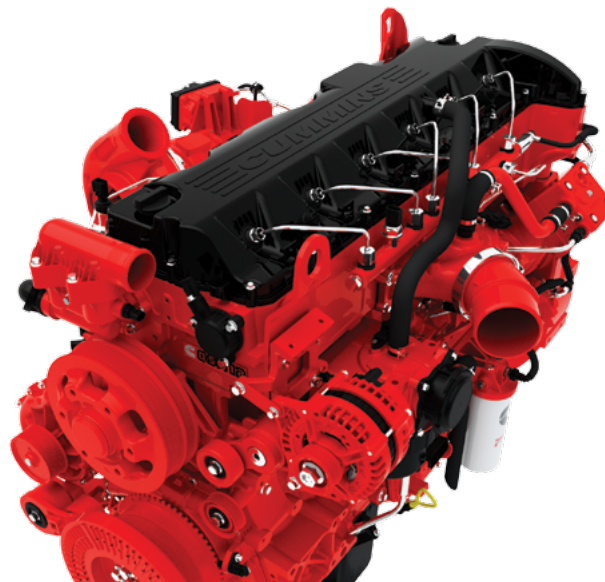
*Cummins in 2014 launched the G Series platform, a new global Heavy-Duty engine now in production in China to meet a broad variety of on-highway and off-highway needs.*

**SPECIAL FEATURES:** Design and development of the in-line, six-cylinder engine was led by a team in the United States, supported by global technical and marketing resources with deep knowledge of local market and customer needs.

A key design focus for the G series, available in 10.5- and 11.8-liter

displacements, has been on achieving significant weight reductions to increase the engine's power-to-weight ratio.

A sculpted block retains high rigidity while removing unnecessary mass. The use of composite material for the oil pan and valve cover provides further weight savings. The G Series achieves a low engine weight



of just 1,900 pounds (862 kilograms) while retaining the structural strength and durability expected of a Cummins Heavy-Duty engine.

**QUOTABLE:** "This engine platform has been designed for diverse and global markets by utilizing the expertise and local knowledge of our engineers from around the world," said Steve Chapman, Cummins' Group Vice President – China and Russia.

### QSG12

#### WHAT'S NEW:

*In 2013 and 2014, Cummins introduced to the North American construction and agricultural markets the new QSG12 engine, a member of the "G Series family" for Heavy-Duty applications. The 6-cylinder, 12-liter engine meets EPA Tier 4 Final regulations, achieving near-zero emissions.*

**SPECIAL FEATURES:** The QSG12 includes significant weight savings through the use of such things as composite material. In addition, the engine system integrates Cummins' Selective Catalytic Reduction (SCR) technology to reduce emissions and allow for improved fuel efficiency.

**QUOTABLE:** “For Tier 4 Final, the QSG12 sets a new benchmark for heavy-duty engines with its ability to outperform any comparable engine, yet provides a smaller, lighter and simpler engine package to install,” said Hugh Foden, Executive Director – Cummins Off-Highway Business.

## Eaton powertrain

### **WHAT’S NEW:**

*In early 2014, Cummins and power management company Eaton announced that Eaton’s popular SmartAdvantage Powertrain package is being offered in some Cummins ISX12 and ISX15 engine applications to maximize fuel economy.*

**SPECIAL FEATURES:** The powertrain package includes power, fuel and shifting strategies to provide an estimated 2 to 4 percent fuel economy improvement for regional haul applications using the ISX12 and 3 to 6 percent on the ISX15.

**NOTABLE:** Eaton’s Fuller Advantage Series transmissions, introduced in 2013, have lower overall package weight and improved reliability due to the elimination of the cooler. Combined with the use of aluminum for the rear transmission housing, and other changes, the new transmission weighs 82 pounds

less than Eaton’s base model. The newest SmartAdvantage powertrain package will be available in the fall of 2014.

## L9.3 engine

### **WHAT’S NEW:**

*In early 2013, the first Cummins L9.3 engine rolled off the production line at the Guangxi Cummins Engine Company Limited, the 50-50 joint venture between Cummins and LiuGong Machinery. The engine marked the official start of operations in Liuzhou in Southern China. LiuGong has been a leader in China’s construction equipment manufacturing industry for more than 50 years.*

**SPECIAL FEATURES:** The L9.3 engine is designed and built in China specifically for construction equipment. The engine is available in multiple versions to meet various off-road emission standards.

**QUOTABLE:** “The new engine will complement Cummins’ existing product and manufacturing capabilities in China and focus specifically on the mainstream domestic construction markets,” said Dave Crompton, Vice President, Cummins Engine Business.

### **ABOUT OUR ENGINES**

Cummins is perhaps best known for its engines that power tractor-trailers, carrying goods literally around the world. But the Company’s engines are in a host of other products for on- and off-highway use.

The Company announced in March, 2014, that there were over 400 machine integration projects underway using the latest generation of Cummins QSF2.8 to QSX15 engines (49 hp to 675 hp or 37 kW to 503 kW) to achieve near zero emissions in bulldozers, cranes, drill rigs, excavators, pavers, road planers and more.

To meet the latest round of regulations for off-highway engines in 2014, the Company’s field-test program accumulated over 140,000 hours and included a snow grooming machine operating at high altitude in the Alps and a rock drill working on a mine site under very dusty, abrasive conditions.

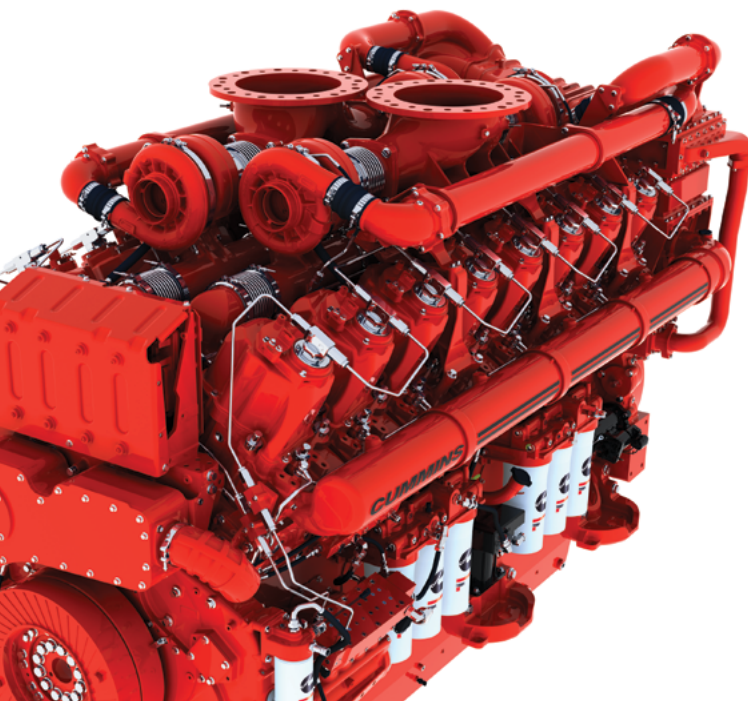
**NOTABLE:** The components and engine features are engineered to deliver high reliability, improved fuel efficiency and performance for off-highway customers. Guangxi-Cummins is the first Cummins manufacturing facility in China dedicated to providing power for the construction machinery market.

## HIGH HORSEPOWER

### QSK95

#### WHAT'S NEW:

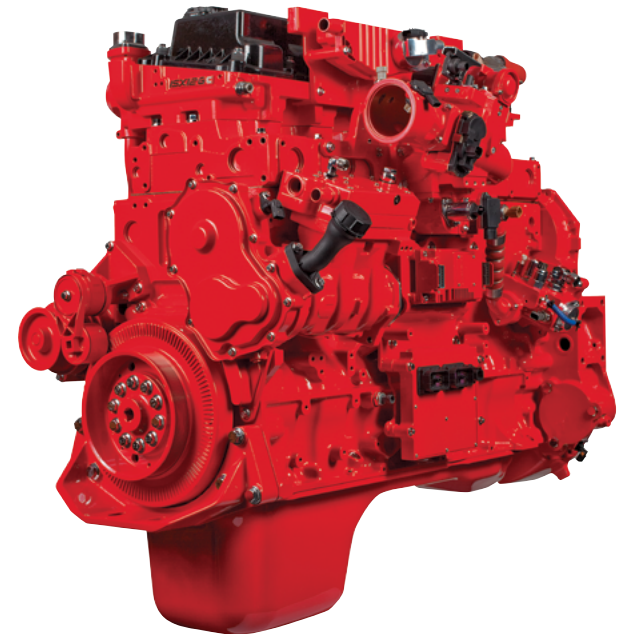
*Cummins announced in 2013 that a locomotive with the Company's QSK95 engine will begin commercial operations in 2014 with the Indiana Rail Road Company (IRR), enabling field test*



*engineers to study the 95-liter engine as it powers the locomotive hauling industrial freight across IRR's network. Cummins has several potential customers interested in using the largest high speed diesel engine the Company has ever built in their rail operations, including for high speed passenger rail.*

**SPECIAL FEATURES:** Cummins will own and operate the 4,200 horsepower locomotive powered by the QSK95, nicknamed the Hedgehog. Cummins engineers will be able to constantly monitor the locomotive's operations on IRR's tracks and fine tune the engine remotely to achieve optimal power and fuel efficiency. The engine is being built at the Seymour Engine Plant in Indiana.

**QUOTABLE:** "We believe our high speed QSK95 will bring not just cleaner operation, but achieve higher performance and lower operating costs than IRR has seen before with their traditional medium-speed powered locomotives," said Ed Pence, Vice President – Cummins High Horsepower Engine Business, in announcing the arrangement.



## NATURAL GAS ENGINES

### ISX12 G

#### WHAT'S NEW:

*The ISX12 G engine went into full production during the summer of 2013, having received certification from the EPA earlier that year for meeting the agency's new greenhouse gas and fuel efficiency rules taking effect in 2014.*

**SPECIAL FEATURES:** The engine is designed and marketed by Cummins Westport, a joint venture between Cummins and Westport Innovations of Vancouver, British Columbia. Cummins produces the engines in its Rocky



## MEETING REGULATIONS EARLY

The U.S. Environmental Protection Agency has some of the strictest emission regulations in the world.

Cummins' ISX15 engine was the first engine to receive EPA certification for new greenhouse gas and fuel efficiency rules for on-highway engines that went into effect in 2014. It received certification a year before the rules became active. The company's full range of on-highway engines were certified a few months later.

Meanwhile, Cummins Power Generation's full range of stationary high horsepower diesel generators received EPA Tier 4 Final certification in 2012, more than a year before the requirements went into effect.

The Company's diesel and natural gas engines met Euro 6 emission standards in 2012. The standards went into effect in January of 2014.

Mount Engine Plant in North Carolina. Cummins Westport natural gas engines are available as factory-installed options from more than 50 truck and bus manufacturers.

With the start of production of the ISX12 G, Cummins Westport now offers engines ranging in size from 5.9-liters to 12-liters.

## QSK50

### WHAT'S NEW:

*The Company announced plans to produce dual fuel engines from 800 hp to 3400 hp for high horsepower markets in 2012. The QSK50 Tier 2 for oil and gas well servicing applications went into production in mid-2013.*

**SPECIAL FEATURES:** The Cummins Engine Business has been producing its own natural gas engines for many years, especially in the Company's High Horsepower business. These engines are primarily for power generation and gas compression customers.

**NOTABLE:** Natural gas versions of other QSK engines including the QSK95 "Hedgehog" are expected to follow in the years to come.

## NATURAL GAS UPDATE

Cummins has paused work on a 15-liter Heavy-Duty natural gas engine for on-highway applications because of uncertainty about the market for long haul trucks using natural gas.

The Company had expected to put its 15-liter natural gas engine into production by 2016.

It will monitor market readiness for a larger on-highway natural gas engine and will restart development work as the market evolves.

## REMANUFACTURING

### WHAT'S NEW:

*What's old becomes new again at Cummins through the remanufacturing of engines and parts, providing customers with a high-quality, sustainable option that's good for the environment and good for their bottom line.*

**SPECIAL FEATURES:** Instead of sending tons of metal to landfills and the scrap heap, remanufacturing recycles and reuses resources, providing customers with significant savings while greatly reducing the need to mine new materials.

This conserves natural resources and minimizes the greenhouse gas emissions associated with excavating, refining and machining materials used for new parts. A Cummins ReCon engine or





A Cummins employee uses ultrasonic inspection to verify that an engine crankshaft meets factory specifications.

part requires about 85 percent less energy than manufacturing a new engine or part.

Cummins reclaims about 50 million pounds of product annually, avoiding 200 million pounds of greenhouse gas emissions per year.

**NOTABLE:** Cummins remanufacturing ensures every part is completely disassembled, cleaned, inspected, fully restored and tested to meet original specifications before it's sold. If an upgrade has been made from the original design or material of a particular part or engine, upgrades will be added as it is remanufactured.

In 2013, remanufacturing at Cummins had sales of about \$1 billion. Cummins' remanufacturing operations include nine global facilities and offers about 3,000 part numbers.

#### TO LEARN MORE

You can learn more about Cummins' complete line of engines at [cumminsengines.com](http://cumminsengines.com)

## POWER GENERATION

Cummins Power Generation has a proven track record of developing cleaner combustion techniques in its natural gas and diesel generators, combined with factory-integrated exhaust aftertreatment, to meet stringent global emissions standards.

Sophisticated electronic engine controls have virtually eliminated visible smoke, and better engine design has reduced lubricating oil consumption to only 0.15 percent of fuel consumed – the best in the industry.

Power Gen's lean-burn gas engine generators, used in combined heat and power (CHP) applications, significantly reduce wasted energy and overall emissions. Meanwhile, the business unit's Energy Solutions Business is developing

CHP systems that use a wide range of alternative fuels including an invasive weed in Africa (page 66).

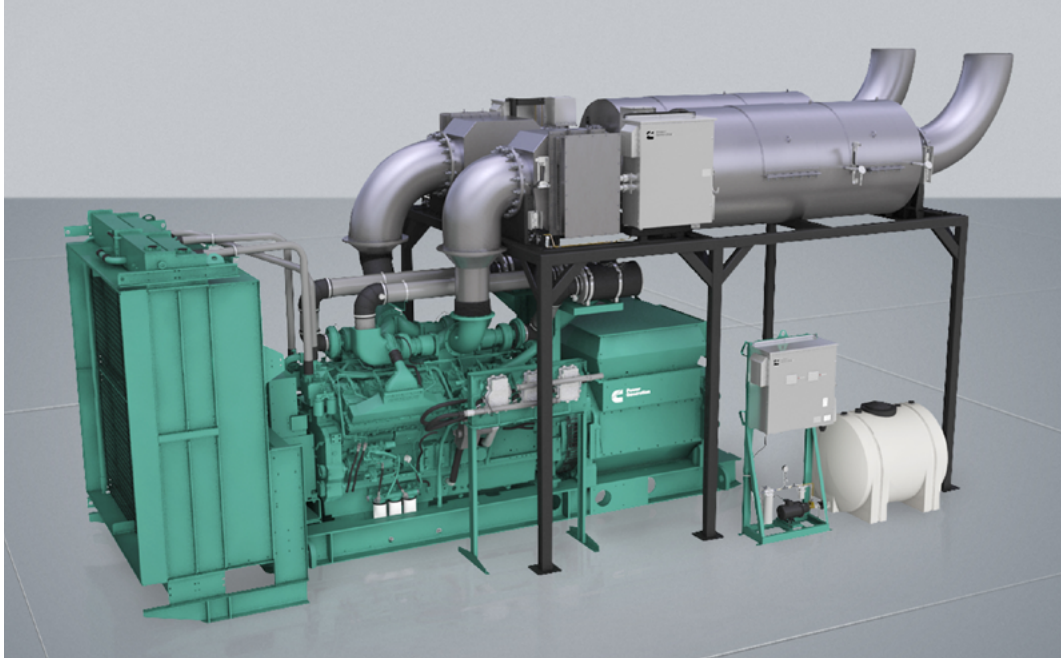
In 2013, Cummins Power Generation entered the residential and light commercial marketplace with the introduction of the QuietConnect and PowerConnect generators (page 38). Using its state-of-the-art Acoustical Testing Center, engineers designed some of the quietest standby generators in the market.

Here's a look at some of the other key sustainability developments at Cummins Power Generation over the past year:

### HIGH HORSEPOWER GENERATOR SETS

#### WHAT'S NEW:

***Cummins Power Generation in April, 2014, became the first manufacturer to receive Tier 4 Final certification from the EPA for its complete line of high-horsepower generator sets, ranging from 680 kilowatt (kW) to 2,750 kW. Generator sets in this power range are typically used for backup power in critical power applications such as hospitals and data centers. Cummins Tier 4 Final systems were available eight months ahead of the EPA's Tier 4 Final implementation date of January 1, 2015.***



*A high horsepower diesel generator set with an aftertreatment system to treat emissions.*

**SPECIAL FEATURES:** The new Tier 4 Final generator sets achieve a 99 percent reduction in particulate matter (PM) emissions when compared to a Tier 2 product. The SCR aftertreatment system, together with the latest controls, achieves a NOx reduction of 94 percent or more. The newly certified units will also qualify for standby power applications in locations where air quality is impaired or where stricter local air quality regulations require Tier 4 Final generator sets even for emergency use.

**QUOTABLE:** “This achievement definitively demonstrates Cummins’ leadership role in diesel emissions reduction technology,” said Dennis Heathfield, Executive Director – Power Systems, Cummins Power Generation. “By achieving this emission reduction, we are providing customers with more fuel-efficient and cleaner generators.

Our Tier 4 Final-certified systems are a win for our company, a win for our customers and a win for the environment.”

#### **HYBRID POWER FOR TELECOM**

##### **WHAT’S NEW:**

*Cummins Power Generation signed a five-year agreement with Heliocentris in 2013 to incorporate that company’s networked energy management technology into a new hybrid system to provide power for cellular base stations and other applications.*

**SPECIAL FEATURES:** The system integrates diesel generators with additional power components such as wind turbines or fuel cells to reduce fuel consumption and operating costs. The resulting hybrid system reduces the operational expense for cell sites by up

to 70 percent while also significantly reducing their carbon footprint.

**NOTABLE:** Diesel generators are the preferred source of electrical power for off-grid and standby power applications such as cellular base stations because of their durability and reliability.

#### **GENERATOR-DRIVES AND MOBILE GENERATORS**

##### **WHAT’S NEW:**

*Power Generation introduced two new diesel G-Drive engines certified to meet EPA Tier 4 Final emission regulations, the latest regulations put out by the agency. New mobile generators for the rental equipment market were also introduced based on the G-Drive engines. They generate 150 kilowatts of electrical energy (kWe) and 200 kWe, respectively.*

**SPECIAL FEATURES:** The QSB7 and QSL9 are expected to be available in 2014. The QSB7 is rated at either 240 or 315 horsepower while the QSL9 will be rated at 433 hp. The new engines use a combination of Exhaust Gas Recirculation (EGR) and Selective Catalytic Reduction (SCR) to reduce emissions without the use of a Diesel Particulate Filter (DPF).

## FIT FOR MARKET

As Cummins increases its presence globally, it is important that our products meet the needs of specific regions and comply with the regulatory requirements of those regions.

Cummins has a portfolio of technologies that can be adapted to meet the power needs of specific markets, taking into account local product and application requirements. The Company must be able to successfully deliver its technology to customers in developing and unregulated countries but remain competitive as Cummins sells, modifies and services engines in these regions. Cummins has and will continue to actively work within regions and with regulators to drive toward lower emissions and greenhouse gas standards globally.

Cummins participates in a regulatory program called Averaging, Banking and Trading (ABT). This EPA program allows emission credits to be generated and “banked” by a company whose products generate emissions that are lower than the regulated level. These banked credits may be applied to other engines whose emissions are higher than the standard. However, some emission credits are discounted by a certain percentage depending on engine type and ABT program rules. As a result, a portion of the emissions credits generated go unused by the Company and are thus an additional benefit to the environment.

The mobile generators smartly manage power between parallel-coupled generators to share loads. By automatically matching power to varying loads, this new generation of products significantly reduces waste and consumption.

**NOTABLE:** Through the use of SCR and Exhaust Gas Recirculation, the engines offer reduced maintenance and 4 percent better fuel efficiency than previous Cummins engines in their class.

### COREPLUS

#### WHAT'S NEW:

***Cummins Generator Technologies, a division of the Cummins Power Generation Business Unit, announced in 2012 the availability of its CorePlus Motor Generator and Power Electronics technology for hybrid commercial vehicles globally.***

**SPECIAL FEATURES:** CorePlus is available with power, torque and performance characteristics suitable for hybrid systems, electric vehicle designs, range extender solutions and electrical power generation in vehicles.

The CorePlus Motor Generator fits between the vehicle engine and transmission, allowing original equipment manufacturers (OEMs) to keep using their preferred engine and transmission.

The Motor Generator has a rugged housing to allow it to operate in the harsh environment of the engine bay.

**NOTABLE:** Cummins believes there is a strong market for engine electrification in medium- and heavy-duty commercial vehicles. The CorePlus Motor Generator will accelerate the evolution of engine electrification and drive even greater improvements in vehicle fuel efficiency and emissions reduction.

### TO LEARN MORE

You can learn more about Cummins Power Generation's complete line of generators and related products at [power.cummins.com](http://power.cummins.com). Cummins Generator Technologies' complete line of alternators and related products can be found at [cumminsgeneratortechnologies.com](http://cumminsgeneratortechnologies.com)

## COMPONENTS

The Components Business consists of four units that play a critical role in helping the Company's engines operate efficiently and with near zero emissions: Cummins Emission Solutions, Cummins Filtration, Cummins Turbo Technologies and Cummins Fuel Systems.



## CUMMINS EMISSION SOLUTIONS

Cummins Emission Solutions (CES) designs, manufactures and integrates exhaust aftertreatment systems, growing into a \$1 billion company since it was created in 2002. That growth has been propelled in large part by the growing regulation of engine emissions around the world.

### WHAT'S NEW:

***In 2014, the business introduced its EcoFit Selective Catalytic Reduction (SCR) systems to high-horsepower engine markets. The business opened a new facility, Cummins Mineral Point East in Wisconsin, dedicated to manufacturing this product. The systems will first be used in rail applications.***

**SPECIAL FEATURES:** The use of SCR to clean engine emissions allows combustion to be optimized, improving fuel efficiency. Engines using SCR have experienced up to six percent better fuel economy, lowering carbon dioxide (CO<sub>2</sub>) emissions because the engines use less fuel.

**NOTABLE:** In response to new standards in China comparable to Euro IV regulations of particulate matter (PM) and oxides of nitrogen (NO<sub>x</sub>), CES has developed aftertreatment systems for customers in that market.

*Cummins Emission Solutions' full-system aftertreatment solutions include diesel oxidation catalysts, diesel particulate filters and selective catalytic reduction technologies in a combined package.*

The systems include partial-flow catalysts, diesel oxidation catalysts, diesel particulate filters and SCR systems. CES has now sold more than 1.7 million SCR systems, helping customers cover more than 80 billion miles.

### TO LEARN MORE

You can learn more about Cummins Emission Solutions at [cumminsemissionsolutions.com](http://cumminsemissionsolutions.com)

## CUMMINS FILTRATION

Modern diesel engines require an unprecedented degree of fuel cleanliness to support the high pressure common rail fuel systems that allow for precise fuel injections at critical times in the combustion process to reduce emissions and noise.

### WHAT'S NEW:

***In 2013, Cummins Filtration's advanced NanoNet filtration media began making its way into the business unit's fuel filtration products beyond just Fleetguard products, where it debuted exclusively in 2012.***

## ABOUT SCR

Selective Catalytic Reduction (SCR) is an exhaust aftertreatment system designed and manufactured by Cummins Emission Solutions that readers will see mentioned in this section several times.

With the use of SCR aftertreatment to remove oxides of nitrogen (NO<sub>x</sub>) from the exhaust, engine combustion can be optimized to improve fuel efficiency. Engines integrated with SCR aftertreatment have delivered up to six percent better fuel economy.

SCR-based systems convert NO<sub>x</sub>, which can cause smog and acid rain, into nitrogen and water that can be safely emitted into the atmosphere.

The technology has been around for a while, but got a lot of attention when it was integrated with Cummins' EPA-certified 2010 on-highway engines. SCR's use has been successfully expanded to other engines since.



**SPECIAL FEATURES:** NanoNet traps 99 percent of all particles as small as 4 microns (12 times smaller than the smallest particle visible to the human eye) to deliver superior protection and performance. The filtration media exhibits between seven and 13 times greater retention of harmful particles during engine vibration and fuel surge than its closest competitor.

**NOTABLE:** The business unit makes extensive use of recycled steel in its own products and has its own program, Filtering Change, to work with customers on recycling Cummins Filtration products.



In 2013, more than 771 tons of filters, including 665 tons of steel, were recycled through the program. This equates to about 857 metric tons of greenhouse gas emissions avoided.

To learn more about Cummins Filtration, go to [cumminsfiltration.com](http://cumminsfiltration.com)

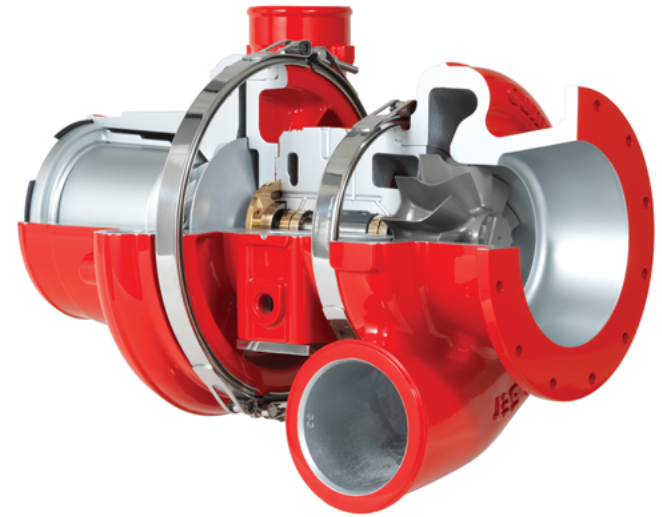
### CUMMINS TURBO TECHNOLOGIES

Turbochargers play a critical role in the modern engine, boosting power and efficiency with a minimum of weight, and producing heat for chemical reactions critical to some exhaust aftertreatment systems.

#### WHAT'S NEW:

***Cummins Turbo Technologies unveiled in 2014 a new addition to its existing range of large turbochargers for engines 16 liters and above. The new Series 900 provides robust and flexible solutions for the off-highway market.***

**SPECIAL FEATURES:** This product will allow Cummins Turbo Technologies to bring to market the most efficient turbochargers in this range with new technologies capable of improving overall turbocharger efficiency by up to 10 percent.



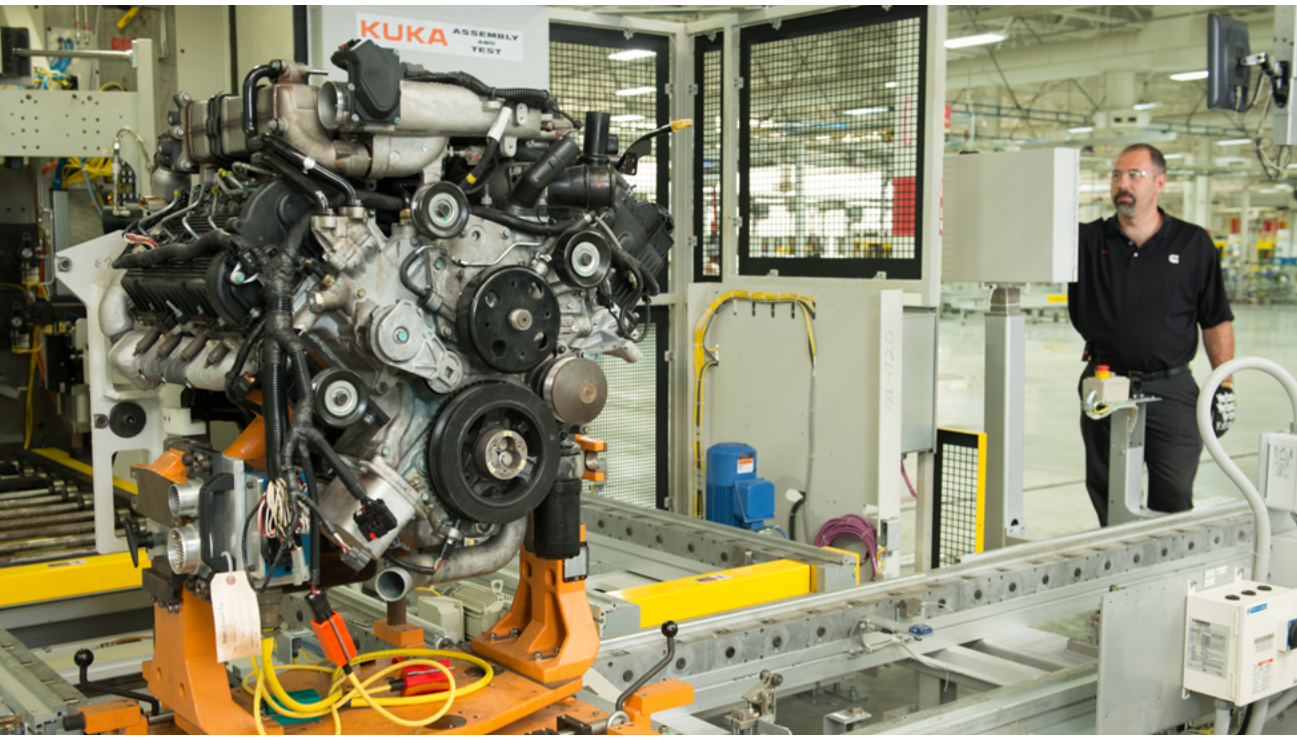
**NOTABLE:** Turbo Technologies also unveiled plans for investing in future technology that will improve fuel efficiency. The shift in focus to prioritize fuel economy highlights Cummins Turbo Technologies' belief that the industry has now reached the tipping-point. Global engine and equipment manufacturers are developing products designed to help customers with rising fuel prices. An example of this investment is the Waste Heat Recovery Turbine Expander, which can help improve fuel efficiency of a heavy-duty truck by 5 percent.

#### TO LEARN MORE

You can learn more about Cummins Turbo Technologies at [cumminsturbotechnologies.com](http://cumminsturbotechnologies.com)

# CUMMINS MAKES BIG MOVES IN PICKUP, LIGHT TRUCK MARKETS

*Customers looking for power and fuel economy in their next pickup truck will find a new Cummins engine in the light-duty market and new features on a long-time favorite in the heavy-duty market.*



*An employee works on the new Cummins 5.0L V8 Turbo Diesel engine at the Columbus Engine Plant in Columbus, Indiana.*

The Company in 2013 introduced the Cummins 5.0L V8 Turbo Diesel that will be featured in the next generation of Nissan's Titan pickup trucks.

"This new engine will offer the right balance of power, performance and fuel economy while delivering the dependability that customers expect of a Cummins engine," said Dave Crompton, Vice President of the Cummins Engine Business. "This will be a great package."

In addition, the Company unveiled the Cummins ISV5.0, a closely related, 5-liter, V8 turbo diesel engine designed to efficiently power delivery trucks, school buses and motor homes.

"Many of our customers have asked for a Cummins alternative to gasoline or other small displacement automotive diesel engines," Crompton said. "The ISV5.0 represents the next dimension in fuel economy and performance as



*The Frontier Diesel Runners – Powered by Cummins. The truck has a 2.8L turbo diesel engine. Nissan and Cummins are evaluating the viability of the package.*

Cummins continues to broaden our on-highway product line.”

With more than 300 horsepower and a torque rating in the mid 500s (lb-ft), the engine will provide light truck customers a unique combination of towing capacity and fuel economy in the highly competitive North American pickup truck marketplace. And with that increase in fuel economy, there is a corresponding reduction in greenhouse gas (GHG) emissions.

With a compacted graphite iron cylinder block, forged steel crankshaft, high strength aluminum alloy heads and composite valve covers, both engines offer maximum durability in a lightweight package.

Customers will also find that the new engines are extremely quiet. Jim Katzenmeyer, Executive Engineer of the V8 program, said it was the first thing he noticed when he drove one of the early Nissan Titan pickup truck prototypes. He said the same is true of the ISV5.0

“Every day drivers will appreciate the smooth, quiet operation of the ISV5.0,” he said.

Both engines also include an advanced ceramic glow plug system that significantly reduces start times in cold weather. The plugs are designed to last the life of the engine with no maintenance and reach starting temperature in under two seconds when it's -20 degrees Fahrenheit (-29 Celsius).

In addition to the new 5.0L platform, Cummins also added fuel-saving innovations to the legendary 6.7L Turbo Diesel best known for powering Ram heavy duty pickup trucks. The 2014 Cummins powered Ram represents a 25-year partnership between Chrysler and Cummins.

For the 2013 model year, Cummins began adding Selective Catalytic Reduction (SCR) after-treatment downstream of the engines to reduce emissions and improve fuel efficiency. SCR injects diesel exhaust fluid into the exhaust stream, creating a chemical reaction that converts harmful oxides of nitrogen into natural components in the air.

The use of SCR to clean engine emissions allows combustion to be optimized, improving fuel efficiency for Ram customers. The 6.7L Turbo Diesels with SCR have seen fuel economy increases of 10 percent or more while still providing best-in-class towing capacity to Ram owners.

At Cummins, innovation is one of the Company's core values. Cummins' engineers are constantly working toward the next big thing to meet customer needs.

That's why at the Chicago Auto Show in February, 2014, visitors could see one of two concept Nissan Frontier Diesel Runners – Powered by Cummins. The 2.8L turbo diesel engine, developed at the Cummins Technical Center in Columbus, Indiana, produces about 200 horsepower and more than 350 lb-ft of torque. Nissan and Cummins are evaluating the viability of the package for the North American truck market.

“These trucks really highlight modern, clean-diesel engine characteristics, with durability and power that Cummins customers have come to depend on,” Crompton said.

“The Nissan Frontier is a great platform to demonstrate the potential of a Cummins-powered compact pickup for the U.S. market.”



# CUMMINS' TESTING CENTER KEEPS NEW GENERATORS HUSH, HUSH

*When you're trying to build one of the market's quietest generators, it helps to have one of the world's largest acoustical testing centers in the power generation business.*

Cummins Power Generation's test center in suburban Minneapolis, Minnesota, is playing a key role in the Company's entry into the residential and light commercial marketplace with the 2013 introduction of the Cummins' QuietConnect and PowerConnect generators.

"The Acoustical Testing Center allows us to be very precise in our testing, which helps us to produce a generator that is extremely quiet," said Dr. Shashikant More, a Cummins engineer who works at the center and has a Ph.D. in mechanical engineering with a specialization in acoustics. "The center was one of the things that attracted me to come here."

With its distinctive curved roof and sound-absorbing acoustical wedges throughout the interior, the test center eliminates unwanted noise, leaving just sound from whatever is being tested to be precisely measured and evaluated.

Opened in the fall of 2011, the test center, known around the Company as the "ATC," is also temperature and humidity controlled. Cummins engineers can conduct testing any time of year and be confident that conditions are identical to the time when they tested earlier.

Cummins Power Generation engineers will frequently test individual fans and other components in different combinations until they reach an integrated system that makes the least possible noise while producing the power customers need.

The Company's work to reduce noise, however, typically starts well before anything is tested in the ATC. Cummins engineers first use acoustical noise modeling to explore different ideas on a computer before going to the time and expense of building a prototype and testing it in the ATC. This two-pronged approach enables Cummins

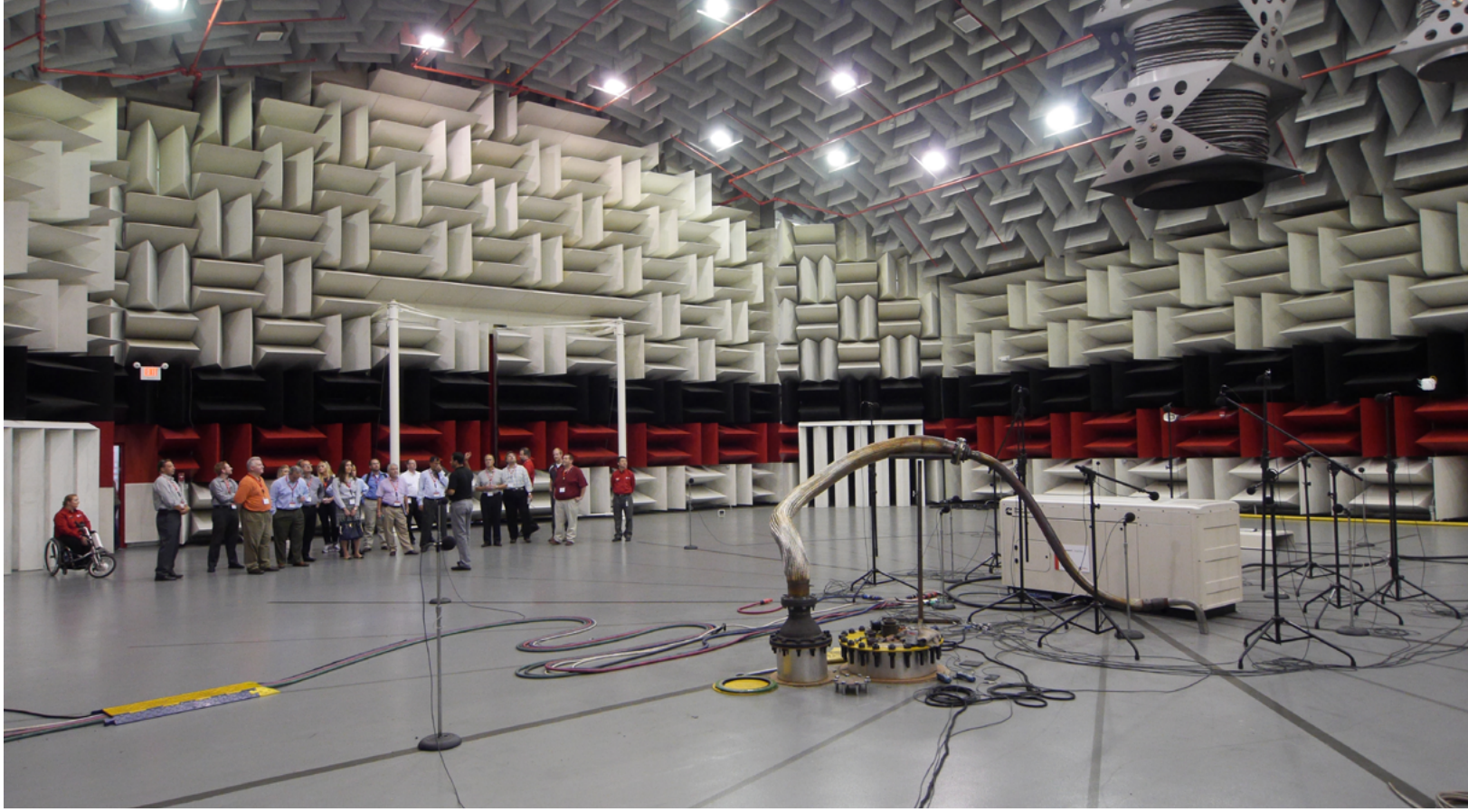
Power Generation to study a wide variety of possible solutions in a way that's extremely cost effective.

Still, there's nothing like a little anecdotal evidence to validate an idea. While Cummins engineers had all kinds of statistics to back them up, they knew their efforts on the Connect series had been successful when a group of visiting distributors invited to see the generators in action in 2013 asked if the generator in the ATC was actually turned on.

Why all the attention to sound?

The QuietConnect and PowerConnect generators will provide standby power to homes and businesses. In more than 500 separate interviews before Cummins engineers went to work, potential customers made it clear they wanted efficient and quiet standby power.





*Distributors and customers gather at the Cummins Power Generation Acoustical Testing Center (ATC) in Fridley, Minnesota, in 2013 to witness the new Connect series generators in action. The ATC has helped Cummins engineers design extremely quiet generators.*

But unwanted noise is more than just an annoyance for homeowners and small businesses. It's increasingly regulated, especially by local governments seeking to maintain the quality of life within their jurisdictions.

While it doesn't yet approach the regulation of engine emissions by agencies like the U.S. Environmental Protection Agency,

noise regulations are a growing concern for many consumers.

Of course, first and foremost, customers want a reliable generator that will keep their families safe and businesses running during power outages. The Connect series, powered by the reliable Cummins QSJ2.4 engine, delivers output ratings from 22 to 60 kilowatts in a natural gas or propane fuel option. They are designed and tested to perform under extreme temperatures and at high altitude and include a durable, corrosion resistant enclosure able to withstand winds up to 150 miles-per-hour.

And in keeping with the Company's mission to demand that "everything we do leads to a cleaner, healthier, safer environment," the generators meet all EPA emission regulations for emergency and standby generators.

"Now, it's easier and more affordable than ever for homeowners and business owners to enjoy the peace of mind that reliable backup power from Cummins Power Generation can provide," said Cummins Vice President Tony Satterthwaite, President – Cummins Power Generation, in launching the new Connect series.

## PRACTICES

*Cummins is constantly looking for ways to shrink the Company's environmental footprint, focusing its environmental management efforts on the three main areas articulated in Cummins' Corporate Environmental Policy: compliance, pollution prevention and resource conservation.*



*At the Rocky Mount Engine Plant in North Carolina, Energy Champions conduct "Energy Treasure Hunts" on a regular basis to find and fix wasted energy use.*

Cummins' Enterprise Environmental Management System (EMS) has been the primary driver for environmental footprint reductions and other improvements in Cummins facilities since its inception in 2003 and the global deployment that followed.

The Company adopted a model that included a common framework to ensure a similar look, feel and fundamental approach throughout the organization, with the flexibility to allow individual sites and businesses to address opportunities and risks most important to them.

Since 2007, Cummins has integrated health and safety processes and procedures with the environment in accordance with the international standard OHSAS 18001 Occupational Health & Safety Management System, to create the Enterprise Health, Safety and Environmental Management System (HSEMS) (page 48).

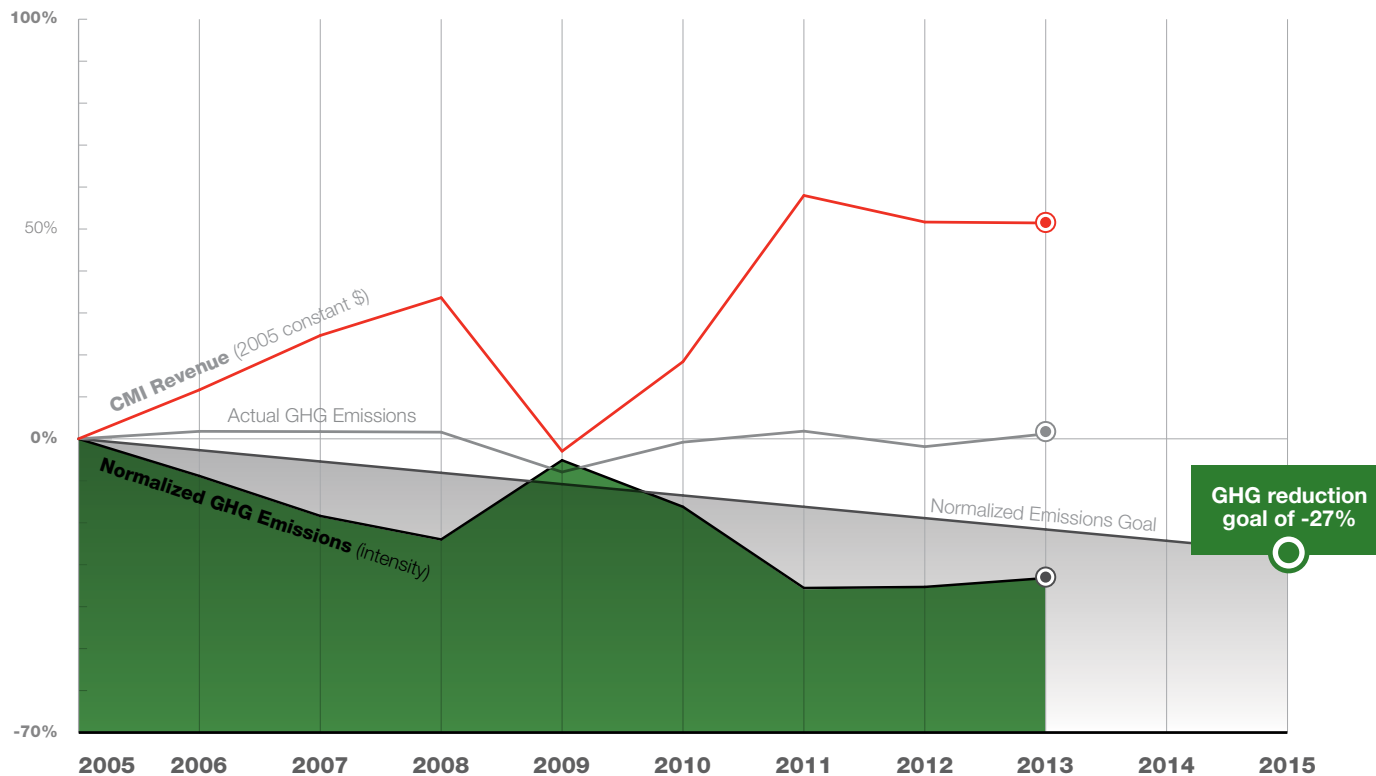


## AIR / ENERGY / GHG

In 2013, the company's GHG emissions increased both on an absolute basis (up 3 percent) and adjusted for sales (up 2 percent) from the prior year. Since Cummins' goal uses a baseline year of 2005, however, emissions have decreased adjusted for sales by 33 percent since that year, while increasing slightly at 1 percent on an absolute basis.

In 2006, the Company set its first formal greenhouse gas (GHG) reduction goal: a 25 percent GHG intensity reduction between 2005 and 2010 based on Cummins comprehensive GHG emissions foot print. The focus on energy and greenhouse gas represented the first company-wide initiative of its kind targeting a specific set of environmental impacts around the globe. Cummins exceeded its target by achieving a 28 percent GHG reduction.

Cummins is now a partner in the U.S. Department of Energy's (DOE) Better Buildings, Better Plants Challenge, which is the industrial component of the Better Buildings Challenge. The challenge is a national leadership initiative calling on chief executive officers, university presidents and state and local leaders to significantly reduce energy use and share the results of their energy reduction strategies.



*Cummins is committed to reducing greenhouse gas emissions by 27 percent (adjusted for revenue) between 2005 and 2015.*

*This goal does not include performance from unconsolidated joint ventures.*

The goal of the Better Buildings Challenge is to make American commercial and industrial buildings at least 20 percent more energy efficient by 2020.

As a partner, Cummins has committed to a 25 percent energy efficiency intensity reduction from 2005 to 2015, which equates to a 27 percent greenhouse gas (GHG) reduction. Cummins has shared energy best practices publicly through the DOE website, including details on the Company's Energy Champion program (page 54) and our showcase plant in Jamestown, New York.

Cummins is also participating in the DOE's Superior Energy Performance (SEP) pilot, which requires rigorous energy performance assessments and achievement of significant, statistically validated energy performance improvements.

Rocky Mount Engine Plant (RMEP) is already certified, and the Columbus (Indiana) Technical Center, Jamestown Engine Plant (New York) and Cummins Power Generation Fridley, Minnesota, plant are pursuing certification by 2015.

Since 2007, Cummins has implemented an energy efficiency capital fund to finance energy-related projects.

Cummins has a comprehensive investment plan designed to achieve the Company's 2015 energy and GHG intensity goals. In 2013, Cummins used this fund to complete 43 capital projects, with a total investment of \$8 million and annual cost savings of \$2.5 million.

To support Cummins' DOE goal, an additional \$20 million has been allocated for 2014. Projects must meet the Company's investment criteria and are expected to save \$7.3 million per year in energy costs (an internal rate of return of 27 percent) and reduce carbon emissions by 56,000 metric tons of carbon dioxide equivalents (CO<sub>2</sub>e) per year.

Cummins is focusing its efforts on four areas:

- » Improve existing facilities
- » Improve energy efficiency of product testing
- » New construction
- » Energy management

Several elements of the Company's energy efficiency program have been recognized as innovations, including: the establishment of an energy efficiency team, a capital fund that made available dedicated, annual funding for energy efficiency improvements and the "Unplugged

Challenge," started in 2008, which kept energy use to a minimum over site holiday shutdowns.

Some recent significant actions in energy efficiency include:

- » Investing in regenerative dynamometers to recover energy from Cummins' engine testing operations. Regenerative dynamometers convert engine power to electricity, which the Company uses to help power its facilities. In some cases, the Company generates more power than it needs and sells the excess.
- » Upgrading old infrastructure with energy efficient alternatives. A recent example is the \$3 million cooling tower replacement at Columbus Engine Plant, which will realize \$500,000 a year in energy savings, reduce carbon emissions by 4,800 metric tons of CO<sub>2</sub>e per year (8.8 percent of site footprint) and conserve 21 million gallons of water per year.
- » Implementing the ISO 50001 international standard for energy management. Cummins Turbo Technologies, Huddersfield, U.K.; the Columbus Engine Plant and the Rocky Mount Engine Plant in North Carolina are now ISO 50001 certified, with 12 more sites to be added in 2014 or early 2015.





*Cummins employees working on a water project at the village of Manjarumbha in India.*

## WATER

Water continues to accelerate as a global priority for both environmental and social sustainability. Cummins' water strategy, launched in 2011, prompts actions in four priority areas to create a holistic approach to water sustainability:

- » Water conservation
- » Operational risks
- » Community alignment
- » Supply chain

Cummins in 2013 reduced direct water use by more than 100 million gallons on an absolute basis or 10 percent adjusted for hours worked. Total water withdrawn decreased from 1.069 billion gallons in 2012 to 962 million

gallons in 2013. Since 2010, direct water use is down by 15 percent and water use adjusted for hours worked by more than 30 percent.

Cummins believes effective water conservation will result in lower costs for the Company, reduced demand and competition for a shared local resource and will enable Cummins to better respond to supply interruptions.

The Company uses a variety of tools to promote conservation. Traditional approaches such as scorecards, cascaded objectives and targets are blended with more consultative approaches that highlight opportunities to site leaders.

The relatively low price of water can create obstacles to driving improvement in site level performance. Cummins has found that the true

cost of water is often masked by the complexity of water systems. Many direct costs such as pumping, electricity and chemical usage are often not accounted for when evaluating a project.

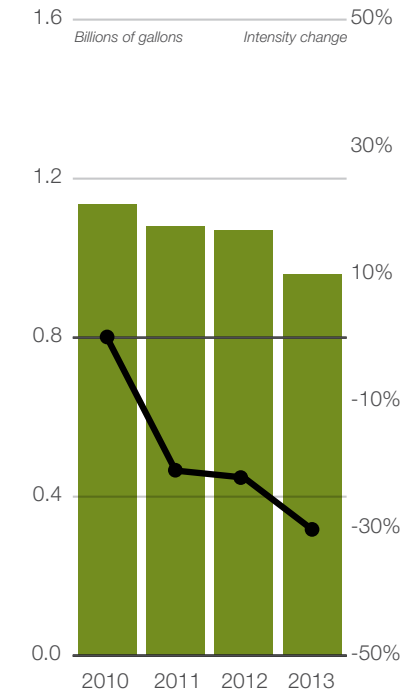
Cummins has developed a tool that identifies water costs embedded in activities such as pumping, electricity and chemical use. Using this tool at an engine plant in Columbus, Indiana, the Company calculated that the fully embedded cost of water exceeded \$20 per thousand gallons when incorporating the cost of energy required for heating. That's more than five times the basic water and wastewater cost of under \$3 per thousand gallons.

Moving forward, Cummins 2020 Environmental Sustainability Plan is setting water conservation goals to this 2010 baseline (page 16). Beyond the cost and resource benefits, conservation efforts improve business continuity, reduce water dependency in production operations and increase the Company's ability to mitigate water supply interruptions.

For example, the installation of a closed loop, air cooled chiller system at Cummins' new High Horsepower plant in Phaltan, India, almost

completely eliminates water dependency for cooling operations and offsets between 10 and 25 million gallons of water use per year in a water-stressed region of the world.

**Total water withdrawn**  
in billion gallons



2010	1.14 B	Total water use
2011	1.08 B	Water withdrawn normalized to labor hours
2012	1.07 B	
2013	0.96 B	

Community alignment is also critical to Cummins' water management strategy. Building upon the Company's long history of Corporate Responsibility, Cummins is driving a focus on community water projects.

Even before the Company set goals in this area as part of the 2020 Sustainability Plan, Cummins was working on significant water resource collaborations with local communities such as the village of Nandal (page 92) near Cummins' Megashite in India.

The project has made more than 40 million liters of water available to the village so far through various means.

The final focus of Cummins' water strategy is supply chain. Approximately 88 percent of Cummins' water footprint exists in the supply chain, mostly associated with the extraction and production of metals. As part of 2020 Sustainability Plan, Cummins' efforts to reduce

*Work begins on the dam at the Village of Nandal near Cummins' Megashite.*

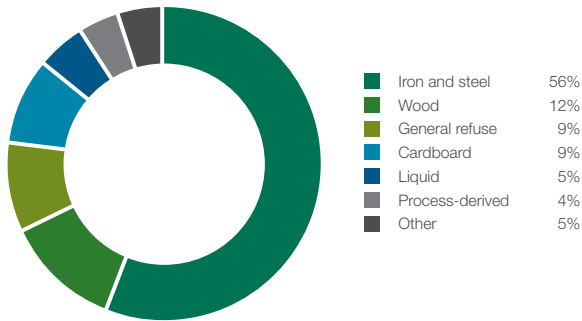


the use of raw materials (page 16) will directly reduce the Company's overall water footprint.

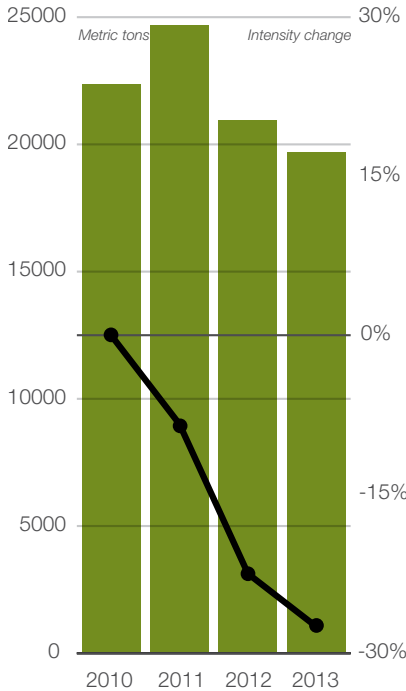
Cummins' water strategy drives a holistic approach to water management that extends beyond traditional approaches relying solely on

conservation. While conservation efforts remain critical, the shared nature of this constrained resource demands that Cummins recognize the implications of water scarcity issues beyond direct operations.

### WASTE FOOTPRINT COMPOSITION

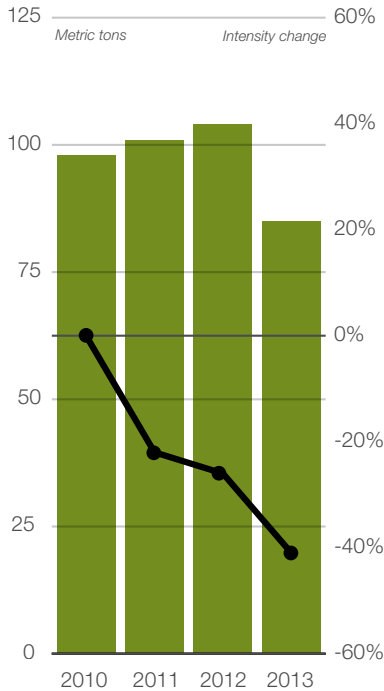


**Total disposed waste**  
in metric tons



2010	22,355 MT	Total disposed waste
2011	24,685 MT	Disposed waste normalized to labor hours
2012	20,930 MT	
2013	19,684 MT	

**U.S. process hazardous waste**  
in metric tons



2010	98 MT	Total hazardous waste
2011	101 MT	Hazardous waste normalized to labor hours
2012	104 MT	
2013	85 MT	

### WASTE

Cummins recycled 89 percent of its total generated waste in 2013, and several sites are either at or near “zero disposal” levels, although the Company will take a new look at those designations in light of the goals included in the 2020 Environmental Sustainability Plan.

The approach used by these sites, however, have helped Cummins comprehensively characterize and evaluate its global waste footprint which in turn led to the development of a formal waste minimization strategy.

Using 2010 as a base year, Cummins’ total waste disposed decreased by about 12 percent in absolute terms, while experiencing a 28 percent reduction in disposal adjusted to labor hours over the same period. Cummins has reduced process hazardous waste generation in the United States



# Here's a more detailed look at Cummins' energy use, emissions and recycled materials.

## Energy use by fuel type

in millions of British thermal units

Includes all consolidated operations and joint ventures subscribing to the Enterprise Environmental Management System.

United States	2010	2011	2012	2013
Diesel	772,213	814,036	810,555	875,961
Natural gas	1,005,109	997,172	934,413	1,127,241
Other fuels*	13,596	14,592	12,913	13,065
Purchased electricity**	4,769,821	4,930,122	4,845,711	4,926,180
<b>U.S. total energy</b>	<b>6,560,740</b>	<b>6,755,922</b>	<b>6,603,593</b>	<b>6,942,447</b>

Non-U.S.	2010	2011	2012	2013
Diesel	871,553	870,350	833,120	772,757
Natural gas	472,441	476,226	418,810	438,554
Other fuels*	142,740	140,839	97,121	96,540
Purchased electricity**	3,799,612	4,019,187	3,758,164	3,181,816
<b>Non-U.S. total energy</b>	<b>5,286,347</b>	<b>5,506,602</b>	<b>5,107,215</b>	<b>5,126,667</b>
<b>Total primary energy usage</b>	<b>11,847,086</b>	<b>12,262,524</b>	<b>11,710,808</b>	<b>12,069,114</b>

\* Other fuels include propane/LPG, gasoline, purchased steam and hot water.

\*\* Primary energy from purchased electricity considers a factor of 3 to account for generation, transmission and distribution losses.

## Energy use by facility type

in millions of British thermal units

Facility Type	Purchased electricity*	Diesel	Natural gas	Other fuels
Manufacturing - Heavy	4,838,918	874,325	717,610	56,058
Manufacturing - Light	2,198,743	102,958	383,081	41,543
Test / R&D	666,111	638,383	251,533	2,279
Distribution / Services	470,578	31,992	129,863	7,996
Warehouses	183,466	995	49,192	1,686
Offices / Data centers	387,180	65	34,517	42

\*Includes generation, transmission & distribution losses

## U.S. and Non-U.S. GHG emissions

in thousands of metric tons CO<sub>2</sub>e

United States	2010	2011	2012	2013
Direct emissions	114,443	117,298	113,746	129,617
In-direct emissions	298,654	305,533	284,004	289,836
<b>U.S. totals</b>	<b>413,097</b>	<b>422,831</b>	<b>397,750</b>	<b>419,453</b>

Non-U.S.	2010	2011	2012	2013
Direct emissions	97,514	98,490	92,499	90,588
In-Direct emissions	249,225	261,789	238,640	240,616
<b>Non-U.S. totals</b>	<b>346,739</b>	<b>360,279</b>	<b>331,139</b>	<b>331,204</b>
<b>Total GHG</b>	<b>759,836</b>	<b>783,110</b>	<b>728,889</b>	<b>750,657</b>

## Recycled materials

in metric tons

Recycled Metals	2010	2011	2012	2013
Ewaste	47.33	78.28	82.02	74.74
Copper and brass	742.78	1,008.31	816.65	692.86
Aluminum	728.39	956.22	1,022.13	995.06
Iron and steel	98,596.07	105,007.43	97,472.11	99,005.96

Recycled non-metals	2010	2011	2012	2013
Office paper	455.21	646.51	710.33	888.53
Plastic	1,172.27	1,403.82	1,267.98	1,605.73
Cardboard	12,672.43	15,943.06	16,372.29	15,106.18
Wood	18,673.68	24,471.27	24,754.84	20,579.72



by approximately 14 percent, on an absolute basis, since 2010.

Compared with 2012, Cummins' total waste disposed in 2013 decreased by 1,246 tons on an absolute basis or 5 percent, adjusted for hours worked.

The Company has made even more progress on reducing hazardous waste from its U.S. processes. In 2013, Cummins reduced hazardous waste derived from its processes and adjusted for hours worked by 41 percent from 2010 levels. Compared with 2012, Cummins in 2013 achieved an absolute reduction of 19 tons or 15 percent adjusted for hours worked.

This substantial reduction was achieved through a multi-faceted effort that included product substitutions, improved waste segregation, improved inventory management, and increased efficiency in painting operations. Several facilities, for example, have successfully replaced solvent-based paints with water-based paints.

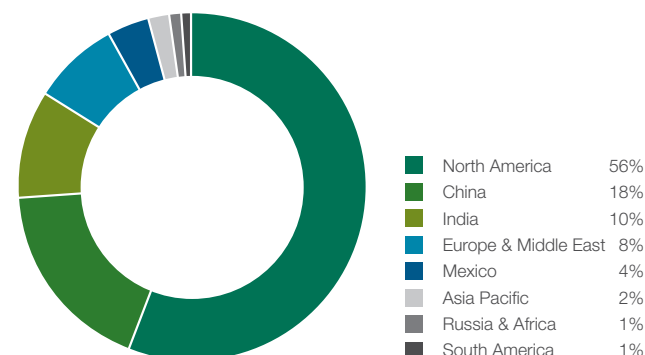
Cummins has successfully completed multiple projects related to manufacturing process redesign, improved waste segregation, increased employee engagement and proactive supplier partnerships.

The Company continues to make capital investments in equipment that facilitates waste reduction and increases our ability to recycle. These efforts have helped Cummins reduce raw materials consumption, energy and water use, and operating costs.

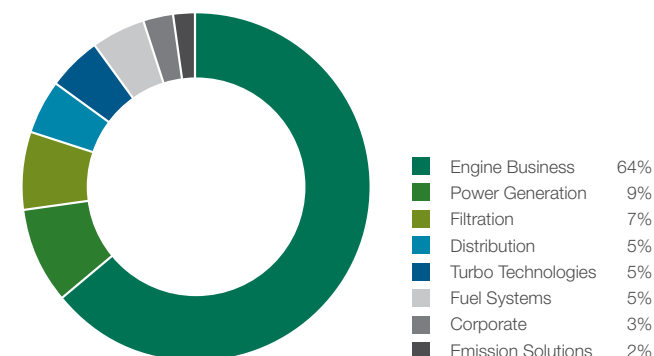
Waste reduction is part of the entire supply chain. Cummins will reduce waste from global facilities by considering product and packaging design and materials in the supply chain. By increasing its operational efficiency, Cummins can make meaningful reductions in the waste it disposes, lowering costs and improving the environment.

The cost savings are significant. For example, Cummins Power Generation facility in Kent in the United Kingdom was able to collaborate with the Engine Business to save \$772,000 by replacing 483,000 pounds of traditional wood pallets with returnable packaging. The project, which paid for itself within six months, also reduced greenhouses gases by an estimated 170,000 pounds.

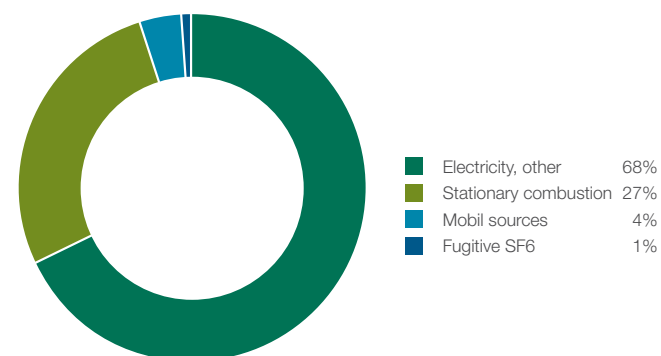
## Cummins GHG emissions by country



## Cummins GHG emissions by business unit



## Cummins GHG emissions by type



## GLOBAL BUILDING STANDARDS

Cummins' new building standard is based on the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) 189.1 to ensure implementation of energy and water efficiency.

While the Leadership in Energy and Environmental Design (LEED) Silver standard is the industry respected norm, Cummins is considered a market leader with the adoption of ASHRAE 189.1. At minimum, all new buildings will be ASHRAE 189.1 compliant or LEED Silver equivalent unless business cases prove otherwise.

Both ASHRAE and LEED standards have been embraced by the U.S. Green Building Council, but Cummins expects that using ASHRAE 189.1 as a design tool will allow Cummins to consider the total cost of ownership in the Company's buildings, increasing energy efficiency and water conservation.

As part of Cummins' 2015 greenhouse gas investment plan, the Company will lessen its footprint in new buildings. With ASHRAE 189.1 standard, we estimate that our buildings' carbon

footprint will be reduced 21 percent over what we may have constructed otherwise.

## HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEM

Cummins expects all sites to comply with Health, Safety and Environmental Management System policy, procedures and initiatives independent of certification status and extends goal setting to its entire organizational footprint.

Cummins policies apply to more than just our employees, also extending to contingent workers, suppliers, contractors and even clients working at Company facilities. Cummins' expectations extend beyond the Company's physical boundaries, encompassing maintenance and support services that often occur at customers' locations or even remote areas where our products are used.

Cummins strategically drives certification to recognized HSE standards. Since 2003, the Company has focused on its manufacturing locations with 94 percent certified to ISO14001 and 92 percent of manufacturing sites certified to OHSAS 18001. By 2015, Cummins expects the HSEMS Enterprise to consist of dual-certified

## WALL HONORED WITH ASME MEDAL

Cummins Vice President and Chief Technical Officer John Wall was recognized in 2013 for his engineering contributions in developing improvements for low emissions, powertrain efficiency and alternative fuels with the Soichiro Honda Medal from the American Society of Mechanical Engineers (ASME).

The medal, established in 1983, recognizes an individual for outstanding achievement in developing improvements in the field of personal transportation.

Wall has been with Cummins for more than 25 years, beginning in research and product engineering and advancing into engineering leadership. His work has contributed to the development and application of innovative technologies in diesel engine emission controls and environmental policy both domestically and internationally.

Under Wall's leadership, Cummins has accomplished a number of "firsts" in emission control: first engine manufacturer to meet 2002 U.S. EPA emission standards, first to introduce cooled exhaust gas recirculation for emission control, first to introduce NOx adsorber technology on commercial heavy duty diesels in 2007 and first to certify to U.S. Environmental Protection Agency 2010 emission standards, to name just a few.

sites, representing 100 percent of the Company's manufacturing and distribution locations.

By the end of 2013, the Company's independent auditor certified 89 entities, representing 202 sites and corporate offices as part of the HSEMS. Cummins HSEMS scope has been extended to encompass manufacturing joint ventures and distributors. They are committed to registering their sites by the end of 2015.

By incorporating practices and procedures into the HSEMS to meet the new ISO 50001 Energy Management Standard, Cummins has delivered a common global approach to make energy efficiency a standard practice across the Company. Broad objectives and targets are set at the corporate level to establish direction for critical corporate initiatives. Cummins' business units and sites then build upon them to establish site-specific objectives that align with Company priorities but address site-specific needs and challenges.

#### **AUDITOR CERTIFICATION PROGRAM**

Environmental goals are measured through a structured audit process. A third party auditor, Bureau Veritas Certification (BVC), certifies our enterprise system and the data Cummins collects. Cummins supplements the audit sampling conducted by BVC by conducting annual audits using internally trained HSE auditors. Every site is audited on an annual basis.

In 2013, more than 100 HSE and other leaders were trained. In addition, 85 internal auditors trained in the previous years have been certified as Lead Auditors after successfully completing a series of audits as a team member and as an audit leader.

This structured audit program validates performance and provides a mechanism for HSE auditors to share best practices. Through these practices, Cummins is not only improving sites – it is building our next generation of HSE leaders.

#### **HEALTH, SAFETY AND ENVIRONMENT AWARDS**

In 2005, Cummins created the Health, Safety and Environment Awards to recognize employees and sites that excel in the commitment to world class performance and environmental stewardship.

Winners of the 2013 awards presented their projects to the Cummins Board of Directors and participated in an exhibition that provided an opportunity for others in the Company to duplicate these best practices.

The growing number and quality of the projects demonstrates that Cummins' employees embrace and celebrate environmental stewardship.

# CUMMINS STRIVES TO REACH NEW 'ZERO DISPOSAL' CHALLENGE

*When it comes to reaching Cummins' "Zero Disposal" goal, Ernie Smith says the last 5 to 10 percent of the waste stream is always the most difficult for any location to handle.*

"By the time you get to that last 10 percent, you've already grabbed all the easy stuff, all the low-hanging fruit," said Smith, Cummins' Environmental Affairs Manager who manages the Company's solid waste. "What remains can be very complex. It's where you have the biggest struggles."

Cummins' goal of 30 sites achieving Zero Disposal status by 2020 might not seem that difficult given the Company in 2013 recycled about 89 percent of its waste.

But to reach Zero Disposal, Cummins locations will have to figure out ways to recycle food waste, unusual packaging and relatively small amounts of certain materials that many recycling companies have little or no interest in.

*Darlington's Neville Scott feeds one of the trash balers on site at Cummins' engine plant in Darlington in the United Kingdom.*







All Cummins sites will have to raise their game in some way. In addition to the Zero Disposal goal, Cummins has set a goal of increasing recycling across the Company from 88 percent in 2012 to 95 percent by 2020.

Zero Disposal is a Cummins specific term. A Zero Disposal site recycles 100 percent of its waste in a legitimately useful manner. Burning trash is only acceptable as a last resort, when there are no other viable options. And then, it can only be done if there is a net energy gain – more energy output than input.

Boosting recycling requires an unwillingness to take “no” for an answer says Neville Scott, who as Health, Safety and Environmental Manager at the Darlington Engine Plant in the United Kingdom leads one of the top locations within Cummins for recycling. Over the years, he’s heard “no” or “it can’t be done” numerous times only to discover a new way to reduce, reuse, or recycle.

Some of the more creative projects at Darlington include:

- » The plant found a way to recycle the wooden pallets it receives with engine blocks from Cummins’ Rocky Mount Engine Plant in North Carolina. A vendor reconditions the pallets and then ships them back at a lower cost than Rocky Mount can buy new pallets.
- » Darlington found an accredited waste service provider for some waste wood that couldn’t easily be recycled. The vendor grinds it up and sells it to a nearby greenhouse that uses it for fuel to keep plants warm in cold weather.
- » The plant has worked with an accredited service provider to recycle paint solvents, using the recycled solvent to clean paint lines at the facility.

Even Darlington, however, still struggles with that last little bit of waste. The food service at the plant voluntarily separates out food waste, which is then put through a macerator for shredding

*These bins show part of the reason Cummins Darlington Engine Plant in the United Kingdom is one of the top plants for recycling within the Company.*

before it is discharged to the local sewage treatment facility. That facility then captures the food solids and composts them until they are eventually applied to the land as a fertilizer and soil conditioner.

A small amount of food waste, though, comes into Darlington’s waste stream from people who bring their lunch to the plant. That waste joins small amounts of various other wastes that are difficult to recycle. Together, the waste is compacted and shipped to a permitted waste service provider who sorts through it one last time for anything that can be composted or recycled.

What remains is burned as a refuse derived fuel at a waste to energy facility.

Smith says meeting both the Zero Disposal goal and increasing the Company’s recycling rate will require a holistic approach like Darlington’s, with Cummins sites working together to share best practices.

“Right now, we’re very competitive with other companies in our industry when it comes to recycling, but we want to be better,” Smith said. “Getting to that next level is not going to be easy, but I know we can do it.”

# CUMMINS WATER CONSERVATION CRITICAL TO ENVIRONMENTAL AND BUSINESS SUSTAINABILITY

*More than 894 million people worldwide do not have access to improved water sources. That means one in six people don't have clean water for drinking, bathing and cooking. The United Nations estimates that by 2025, two-thirds of the world population could be living under water stressed conditions.*



*Part of the Cummins project at the village of Nandal was building this wall to create a holding area for water, which is scarce in the village.*

Water is a critical resource for Cummins' operations including manufacturing and testing. Water scarcity not only threatens the security of the communities where Company employees live and work, but also Cummins ability to do business.

Because water is such a critical need for our business, communities and the environment, Cummins is doing its part to address water issues. Since 2010, Cummins has reduced company-wide water usage intensity by more than 30 percent, adjusted to total work hours.

## **WATER MANAGEMENT AT CUMMINS**

Water conservation is just the starting point of understanding water management – embedded costs, risks, and the challenges facing communities complete the picture.

In 2011, the Company embarked on a structured water strategy to address the complexities of water management in four areas: conservation, business operations risk, community engagement and supply chain. Using an advanced water management tool called the Global Risk Screen (GRS), Cummins now systematically targets its actions and prioritizes Company facilities for on-site water assessments that:

- 01** Evaluate water conservation and efficiency opportunities.
- 02** Develop a more refined understanding of risk exposure and mitigation opportunities.
- 03** Educate local employees on the complexities of emerging water management topics.
- 04** Share best practices between sites.

## A FOCUS ON INDIA

Cummins' greatest region of focus has been India, the Company's most water stressed country of operation.

"The severe water scarcity and lack of water harvesting or conservation was destroying the lives and good health of the villagers of Nandal (page 92), which neighbors the Cummins Megasite in Phaltan, India," said Anant Talaulicar, Vice President and President - Components Group and Chairman, Cummins India Ltd.

"This was a real wake up call for me, and I committed that not only will Cummins bring our talents to help alleviate this crisis, but that we would embark aggressively on a comprehensive water conservation initiative across all of our operations in India.

"Today, I feel very proud of the good work our employees have done in Nandal from rain water harvesting to drip irrigation to modern toilets to

planting crops that minimize water requirements," he said. "This work has dramatically improved the quality of people's lives and their livelihood. Simultaneously, the Health, Safety and Environmental team in India has drawn up a comprehensive long term plan to improve water utilization across all our facilities."

## MORE TO BUILD ON

The Company's new Environmental Sustainability Plan calls for reducing direct water use across the Company by 33 percent by 2020, adjusted for hours worked. In those areas where water is scarce, the plan also calls for achieving "water neutrality" at 15 manufacturing sites by off-setting water use with community improvements like those at Nandal.

Throughout the Company's operations, whether the region is water scarce or not, there are great examples of water conservation and optimizing water use to build on.

The Columbus Technical Center (CTC) in Columbus, Indiana, is the Company's largest user of water, primarily through central plant operations and its 88 test cells. From 2010 to 2013, the plant has reduced water use by 43 percent, or approximately 75 million gallons, through targeted water reductions.

CTC Facility Manager John Lashbrook said that one project involved the washing of bed plates in the test cells. The team found that the water was frequently left running much longer than it needed to be and millions of gallons of water could be wasted in just one test cell. Now water fixtures are on a timer.

In Wuxi, China, at the Turbo Technologies plant, environmental leaders showed you don't have to spend a lot of money to achieve cost savings and environmental benefits.

Through a combination of extending the use of lubricating oil, the use of a better machine cutting fluid and reducing oil use through better maintenance – the plant reduced its waste water by 25 percent, reduced chemical use and saved \$30,000, a return on investment of more than 35 percent.

Cummins will be looking for more examples like that as it pursues its new goals.

*The foundation under construction for the water retention wall at the village of Nandal.*





# ENERGY CHAMPIONS HUNT FOR SAVINGS

*You can tell them by their green shirts and their determined look that says “I’m going to find wasted energy and fix it.”*

They are Cummins Energy Champions and they have found hundreds of instances of wasted energy around the Company, ranging from compressed air leaks and inefficient equipment, to lights left on and dock doors left open letting in hot air.

As they fix these examples and more, the Energy Champions are proving that small things can add up to make a big difference.

This year (2014) marks the 5th anniversary of Cummins Energy Champion program. Since 2009, more than 240 Energy Champions and their deputies have gone through training and in turn trained countless Energy Leaders to help in the effort.

The program was created after Cummins committed to a voluntary 25 percent greenhouse gas reduction (GHG) goal by 2010 as part of the U.S. Environmental Protection Agency’s Climate Leaders program.

“It is very exciting to me that after five years, our Energy Champion program is still very actively engaging employees and teaching them how to reduce energy use,” said Mark Dhennin, Director of Energy Efficiency. “Employees know they are making a difference, both for the environment and for our bottom line, and that is what has kept this program successful and meaningful.”

*Cummins’ Freddie Lacewell in the building management system control room at the Rocky Mount Engine Plant in Rocky Mount, North Carolina, can monitor energy use from every corner of the plant from the room.*

## KEY TARGETS

Cummins has targeted its highest energy-consuming plants, technical centers, offices, and warehouses for the Energy Champions program. By the end of 2014, the 46 largest energy-consuming sites in 11 countries (which comprise approximately 90 percent of the Cummins global energy footprint) are required to complete the program.





## AWARD WINNING EFFORT

In 2013, Tata Cummins Limited – Phaltan set out to make a difference on energy.

The plant Champion's goal was to reduce the energy cost per engine. The team engaged a wide range of employees, from the plant manager to Health, Safety and Environmental leaders to shop floor employees in doing projects

Some of their innovative work involved more efficient cooling systems, a big issue in a hot climate, and reducing idling time of a conveyor system.

Ultimately, the plant achieved a 22 percent carbon footprint reduction per engine and a 26 percent plant-wide reduction, which equates to an annual avoidance of 2,280 metric tons of carbon dioxide and savings of \$233,000 in energy costs.

In recognition of these efforts, TCL Phaltan received the Cummins 2013 Chairman's Award for Energy Efficiency.

To date, the Company's energy efficiency initiatives have delivered approximately \$30 million annually to Cummins' bottom line, with about five to 10 percent of those savings coming from the grass-roots employee engagement projects led by the Energy Champions.

On average, energy efficiency projects have a very attractive 30 percent or more return on investment. The April, 2014, Energy Champion class was the largest ever – 53 environmental and facility leaders from every location in China.

The Champions take an intensive week-long course with specific training along seven energy themes: power management, lighting, building envelope, heating and cooling, machinery and equipment, fuel usage and energy recovery.

There are course materials about energy and GHG basics and standards, including a primer on climate science, fundamental energy terms, how energy is generated and used, and understanding utility bills.

Champions also learn how to conduct energy efficiency assessments and energy treasure hunts, how to evaluate and prioritize projects and develop site energy plans.

## SIGNIFICANT SAVINGS

"The Energy Champion program has been one of the best programs I have been involved with in my 32 years at Cummins," said Scott Williams, one of the first Energy Champions and Health, Safety and Environment leader at the Rocky Mount Engine Plant (RMEP) in North Carolina.

The plant is the Company's top energy user, at an annual spend of \$6 million, with 22 percent coming from compressed air use. Compressed air is so expensive, and waste is so often ignored, that it is frequently called "the fourth utility." RMEP is currently leading the Company's targeted focus on compressed air.

In addition, Rocky Mount is the first Cummins facility to install a high-tech building management system, which monitors energy use at each and every one of the more than 90 meters around the plant. Every breaker, compressed air drop, natural gas user and fuel tank has been metered in the last three years, and the data collected has supported numerous projects for electricity and compressed air reduction using Six Sigma, the business problem solving tool.

Plant energy efficiency leaders estimate that its extensive metering program has saved the plant \$250,000 in energy costs per year as well as nearly 2,000 metric tons of CO<sub>2</sub>.

## PARTNERSHIPS AND POLICY

*Cummins' partnerships have been critical to helping the Company meet product emissions goals, use energy more efficiently and much more. Policy advocacy has helped Cummins bring environmental solutions to the marketplace. Here's a look at just a few examples:*

### RESEARCH AND DEVELOPMENT COLLABORATION

Cummins' longstanding partnerships with the U.S. Department of Energy (DOE) and other federal and state agencies directly support the reduction of greenhouse gas (GHG) emissions and net oil imports. They also help achieve improvements in energy productivity while steadily reducing criteria emissions from the nation's transportation and distributed power generation fleet.

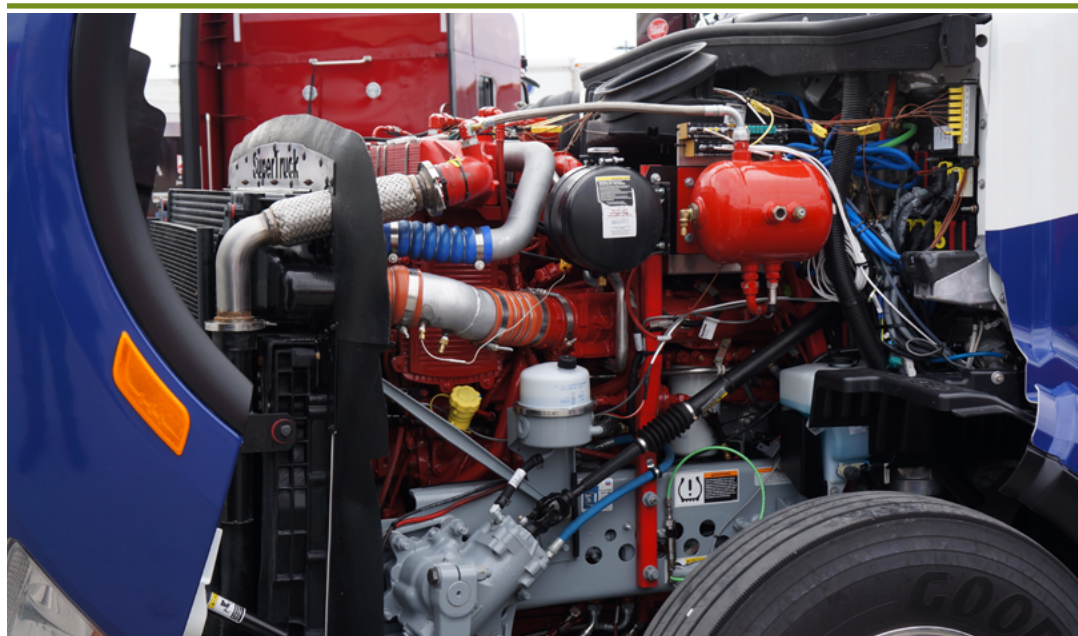
Cummins' current public-private projects include:

» The SuperTruck Initiative (page 64) has significantly exceeded its engine and vehicle freight efficiency targets. The third and final objective is to demonstrate 55 percent brake thermal efficiency technology and to work toward commercialization.

» The ATLAS (Advanced Technology Light Automotive Systems) project will complete its final objectives of 40 percent fuel economy improvement versus a baseline gasoline vehicle, with a new light duty diesel platform delivering Tier 2 / Bin 2 criteria emissions.

» CHP, a joint Cummins Power Generation / Engine Business program, has delivered a natural gas Combined Heat and Power system, achieving more than 80 percent efficiency.

*The SuperTruck engine on display at the Mid-America Trucking Show in Louisville, Kentucky. The SuperTruck project is a collaboration with the Department of Energy.*



- » ARES (Advanced Reciprocating Engine Systems) has completed the third and final stage of high horsepower off-highway natural gas engine demonstration with 50 percent brake thermal efficiency and several advanced efficiency features.
- » The Ultra-Low Carbon Powertrain program is nearing completion. The partnership with the California Energy Commission is targeting a 50 percent GHG emission reduction through a downsized medium-duty engine/powertrain optimized for E85 ethanol. It will be demonstrated in Sacramento in 2014.

Underlying Cummins' system-integration programs is a valuable portfolio of collaborative research and development agreements that team and fund world class researchers at the DOE's system of national laboratories with their counterparts at Cummins.

They work jointly on combustion modeling and diagnostics, materials science, catalysis fundamentals, hybridization and more.

## **ENVIRONMENTAL DEFENSE FUND**

Cummins continues to collaborate with the Environmental Defense Fund (EDF) to learn the degree of fugitive methane emissions from natural gas vehicles and the fuel supply chain.

Through the sponsorship of a series of 16 independent studies, EDF is coordinating the work of more than 90 universities, research facilities and industry partners that are contributing to this research including Cummins and Cummins Westport.

Data is being collected in five core areas: production, gathering lines and processing facilities, long-distance pipelines and storage, local distribution and commercial trucks and refueling stations.

As producers of natural gas engines, Cummins and Cummins Westport are contributing to the study of fugitive methane emissions related to evaporative losses and incomplete combustion from vehicles, and fugitive emissions associated with fueling infrastructure, being led by West Virginia University.

## **DOE AWARD**

Cummins was honored at a ceremony in October, 2013, by the U.S. Department of Energy (DOE) and the World Engineering Congress for surpassing its 25 percent energy reduction goal over the past two years.

As a Partner in the DOE's Better Buildings Better Plants Challenge, Cummins has pledged a 25 percent energy efficiency intensity reduction from 2005 to 2015 as well as transparency in energy use reporting, sharing industrial energy efficiency best practices and committing to a larger-scale showcase project such as the deep energy retrofit at the Jamestown Engine Plant in New York.



*The Cummins - Ad Astra team poses near the generator powered with a mix of hydrogen and biogas.*

The results of the university's study are expected to be submitted to a peer-reviewed journal in 2014, and all of the other studies are expected to be submitted for publication by the end of the year.

#### **AD ASTRA AND CUMMINS PARTNERSHIP**

Cummins sometimes partners with other companies to explore important issues.

For example, a team of researchers from the Ad Astra Rocket Company and Cummins Power Generation are exploring whether the combination of hydrogen and biogas might bring out the best in both of these alternative fuels.

The two companies announced in June, 2013, that they successfully powered a Cummins electrical generator using a mix of hydrogen and biogas. While there is still a lot of work to

be done, this achievement could be a significant milestone, especially for developing countries where natural resources are scarce.

"This is a tremendous achievement in terms of the science and engineering as well as the environmental benefits associated with the use of hydrogen and biogas," said Franklin Chang Diaz, a former astronaut who is Ad Astra's Chief Executive Officer. He is also a member of Cummins Board of Directors.

Ad Astra is based in Costa Rica where all of the country's petroleum is imported. Leaders there have made energy independence a major priority. Water is one resource the country has plenty of and capitalizing on it as an energy source has long been considered a possible way to help meet the country's power needs.

EARTH University is a third partner in this initiative. The school based in Costa Rica teaches students from around the world the benefits of sustainable agriculture including converting animal waste into an energy source. Cummins has long been a supporter of the university.

Hydrogen and biogas are problematic fuel sources individually for several reasons. Hydrogen is volatile and difficult to control making storage a challenge. Biogas, meanwhile, can vary significantly in its energy content depending upon its source.

Researchers are exploring is whether the combination of hydrogen and biogas makes a higher quality biogas with a reasonable amount of hydrogen, resulting in a truly useful renewable fuel that is comparable to natural gas.



## GOVERNMENT RELATIONS

The Company's Government Relations staff continues to advocate for policies, legislation, government research funding and regulatory guidelines that promote products and technologies that benefit the environment.

Cummins' Government Relations efforts in the United States include working with Congress, the Administration, state governments, trade associations and industry to protect EPA's ability to develop regulations in the United States for heavy-duty vehicles.

In addition, the team seeks to broadly educate policy makers about how regulations, economic development and competitiveness can co-exist if developed properly.

At the state level, Cummins successfully advocated for modified net metering rules for Combined Heat and Power systems (CHP) in Minnesota through legislation that encourages the deployment of CHP and other distributed technologies.

In India, Cummins pushed for new generator emission norms recently released by the federal government for below 800 kilowatt (kW) engines.

The Company strongly supported the adoption of these new norms which will contribute to improving the quality of air in India.

In the transportation area, Cummins is pushing for stronger emissions and fuel efficiency rules, along with low sulfur diesel requirements across the country. Cummins worked with the Society of Indian Automobile Manufacturers (SIAM) to organize the "Diesel for the Future" conference in Mumbai, where the importance of clean diesel was a key topic.

In China, the Company is supporting the enforcement of emission regulations nationwide, and the adoption of fuel consumption regulations to make significant heavy-duty vehicle emission improvements possible. Cummins is working with the government, trade associations and industry partners in China to drive consensus on effective fuel economy regulations.

The Company is also encouraging the U.S. government to provide assistance and best practices to Chinese policy makers in this area. Cummins hosted U.S. Secretary of State John Kerry at the Beijing Foton Cummins Engine Company Limited (BFCEC) on Feb. 15, 2014.

*Secretary of State John Kerry speaks at the Beijing Foton Cummins Engine Company Limited.*



Secretary Kerry observed the production lines and gave remarks to an audience of about 200 on how the U.S. and China can work together to make progress on fuel efficiency improvements and emissions reductions.

### **SCIENCE AND TECHNOLOGY ADVISORY COUNCIL**

Cummins gets advice from its Science and Technology Advisory Council on developing products that comply with various standards, reduce the Company's environmental footprint and meet customer demands.

The Council, formed in 1993, has given the Company access to some of the country's leading scientific experts and policymakers from the worlds of academia, industry and government. The Council was restructured in 2010 to make it easier to access a broader group of international specialists and align their expertise with the specific topics being addressed by the Council at a particular time.

The permanent council members are:

- » Chairman Dr. Gerald Wilson, former Dean of Engineering at the Massachusetts Institute of Technology.
- » Dr. Harold Brown, former U.S. Secretary of Defense and former President of the California Institute of Technology.

Other senior international scientists and engineers are invited to participate as advisors depending on the topic.

The Safety, Environment and Technology Committee of the Cummins Board of Directors also advises senior leaders and the technical leadership of Cummins regarding:

- » Environmental and technological strategies, compliance programs and major projects as they relate to the Company and its products.
- » Public policy developments, strategies and positions taken by the Company with respect to safety, as well as environmental and technological matters that significantly impact the Company or its products.
- » Progress of strategic environmental programs and policies.

## **PLANT GETS CLOSER TO THE ENVIRONMENT**

The Columbus Engine Plant (CEP) put a special focus on the environment in and outside the plant in June of 2013, coinciding with World Environmental Day.

The plant hosted a separate activity for each week of the month, including:

- » The plant continued work on a two-mile stretch of a country road, collecting hundreds of pounds of trash. The plant has been cleaning that stretch for more than five years.
- » CEP held an environmental awareness day, inviting more than 30 vendors into the plant to talk about their environmental initiatives.
- » The plant hosted a community-wide recycling event, collecting tons of material as it did in 2012.
- » CEP participated in an adopt-a-creek program with the Columbus Parks and Recreation Department and other community partners to clean and beautify the stream that runs between the Columbus Engine Plant and the Cummins Technical Center.



## **ACADEMIC PARTNERSHIPS**

Cummins partners with hundreds of universities around the world to assist the Company with research and development.

For example, in 2013 Cummins partnered with the Georgia Institute of Technology to train Cummins energy leaders to find ways to use compressed air more efficiently at Cummins facilities.

By participating in the DOE's Better Buildings, Better Plants Challenge program and partnering with the Georgia Institute of Technology, Cummins has the opportunity to access expertise that otherwise would not exist in-house.

## **AMERICAN ENERGY INNOVATION COUNCIL**

In 2010, then Cummins Chairman and CEO Tim Solso joined several key U.S. business leaders serving as founding members of the American Energy Innovation Council (AEIC), a group advocating for development of clean energy to

boost the nation's economic competitiveness. Other members included Microsoft founder Bill Gates and Jeff Immelt, Chairman and CEO of General Electric.

Current Chairman and CEO Tom Linebarger has continued Cummins' leadership role in this group. Cummins, like AEIC, believes that government and business working together to address technological leadership, energy security, economic prosperity and environmental protection is the most effective way to ensure mutual success.

Cummins also sits on the President's Council of Resources for the Future, the Clean Air Act Advisory Council, and the North American Council for Freight Efficiency.

## **SUSTAINABILITY REPORTING**

Cummins takes a number of steps to report on its environmental performance to the public and work with other companies to share best practices.

For the past nine years, the Company has participated in the Carbon Disclosure Project (CDP), an institutional investor consortium that seeks to encourage greater public environmental reporting among companies.

CDP asks companies to provide details on their carbon emissions, their response to the impact of climate change on their markets and regulatory environment, their use of energy and planning for the future.

In addition, Cummins is a member of the Business Roundtable's S.E.E. (Society, Environment and Economy) Change initiative, which encourages member companies to lead by example and adopt business strategies and projects that measurably improve society, the environment and the economy.

Cummins has been a regular contributor to the Roundtable's annual sustainability report, including the 2014 report "Create, Grow, Sustain: Celebrating Success."

# CUMMINS PARTICIPATES IN DISCUSSIONS AROUND GHG AND FUEL CONSUMPTION REGULATIONS

*Cummins' reputation as a technology leader has enabled the Company to help shape responsible regulations that promote technologies for more efficient products with lower greenhouse gas (GHG) emissions.*

Four of the Company's 10 environmental sustainability principles focus on partnerships with legislative and regulatory entities to develop sound public policy reducing Cummins' impact on the environment. They are:

- » Help develop responsible regulations
- » Promote technology development
- » Advocate for incentives to accelerate progress
- » Support a balanced global approach

Cummins worked closely with the U.S. government and a variety of stakeholders to develop the Phase 1 rule, the first-ever GHG and fuel efficiency standards in the U.S. for medium- and heavy-duty commercial vehicles. Cummins voluntarily certified its 2013 products earlier than

required by the Phase 1 standards, which took effect at the beginning of 2014.

The Company is now working with regulators to build on the success of Phase 1 to help shape the next stage of standards known as Phase 2.

"The first phase of these regulations provides a strong foundation that recognizes the needs of business while offering clear direction to create innovative technologies," said Brian Mormino, Executive Director of Cummins Worldwide Environmental Strategy and Compliance.

*Cummins welcomed a Chinese government delegation in 2013 wanting to gain best practices in developing fuel efficiency standards to help address energy use and air pollution from the commercial vehicle market in China.*





“Cummins is committed to building on that foundation by working with regulators, our customers and other stakeholders on the next phase of standards that will lead to even greater reductions in greenhouse gases and fuel consumption,” he added.

A key aspect for Phase 2 is to maintain the same regulatory structure with separate standards for the engine and the rest of the vehicle. Separate standards are critical for the regulation to achieve environmental and user benefits while recognizing the diversity and complexity of the commercial vehicle sector.

Cummins’ role in developing Phase 1 standards and demonstrating the next generation of superior fuel efficiency has not gone unnoticed. The Cummins-Peterbilt SuperTruck was recognized in February, 2014, during a speech by U.S. President Barack Obama on Phase 2 GHG and fuel efficiency standards for medium- and heavy-duty vehicles.

The President directed the Environmental Protection Agency (EPA) and Department of Transportation (DOT) to work together to develop a proposal for the second phase of fuel efficiency and GHG standards. The President called improving fuel efficiency for commercial vehicles a “win-win-win”: reducing carbon pollution,

providing fuel costs savings for business and lowering prices for consumers.

The announcement was attended by administration officials including EPA Administrator Gina McCarthy and DOT Secretary Anthony Foxx. Representatives from Cummins, Navistar, Inc.; Eaton; the Peterbilt Motors Co.; Daimler AG and Volvo Group were also in attendance. Industry associations including the Truck and Engine Manufacturers Association (EMA), American Trucking Associations (ATA) and the Heavy-Duty Fuel Efficiency Leadership group and environmentalists and non-governmental organizations attended as well.

Cummins has the unique ability to partner with a variety of global stakeholders to help shape energy and environmental public policy. The Company has dedicated resources to focus specifically on the policies involving GHG and fuel efficiency regulations for the Company’s products around the world.

For example, the Company hosted a number of prominent environmental and non-governmental organizations in April, 2013, in Columbus, Indiana, to familiarize them with Cummins’ business and technologies and to discuss the Phase 2 regulatory structure.

Attendees included the Environmental Defense Fund, Natural Resources Defense Council, Union of Concerned Scientists, International Council on Clean Transportation, American Council for an Energy-Efficient Economy and Northeast States for Coordinated Air Use Management.

“Cummins values its relationships with stakeholders from across the industry and environmental spectrum because we know strong regulations result from strong collaboration,” said Jackie Yeager, Director of Cummins Global Energy Policy.

Similarly, Cummins welcomed a Chinese government delegation in December of 2013 to discuss current and future emissions and fuel efficiency regulations. The delegation included officials from the Ministry of Industry and Information Technology (MIIT), Ministry of Environmental Protection (MEP), Ministry of Finance (MOF), China Internal Combustion Engine Industry Association (CICEIA) and China Automotive Technology and Research Center (CATARC).

They sought to gain perspective on U.S. technologies and best practices in developing fuel efficiency standards to help address energy use and air pollution from the commercial vehicle market in China.

## ‘SUPERTRUCK’ MAKES BIG IMPRESSION

*When U.S. President Barack Obama called for new fuel efficiency standards for medium- and heavy-duty commercial vehicles earlier this year, he did so in front of the concept “SuperTruck” developed by Cummins and the Peterbilt Motors Company.*

“Thanks to a partnership between industry and my administration, the truck behind me was able to achieve a 75 percent improvement in fuel economy,” Obama said during a news conference at a grocery chain distribution center in suburban Washington, D.C. “Seventy-five percent! That’s why they call this the SuperTruck. It’s impressive. This one right here.”

It was a fitting moment in the four-year development of the tractor-trailer, which includes a high tech engine with a waste-heat recovery system, an aerodynamic exterior and other energy saving features throughout.

Done in partnership with the Department of Energy (DOE), the truck is designed to show the participating companies, regulators, and

customers what’s possible as work now begins to commercialize many of the truck’s features.

The Cummins-Peterbilt SuperTruck made headlines in February of 2014 when the two companies announced their demonstration tractor-trailer had achieved 10.7 miles per gallon (mpg) under real-world driving conditions.

At one time, the thought of developing a truck that could meet or exceed 10 mpg when fully loaded was considered unlikely if not impossible. However, with advances in engines, aerodynamics and more, SuperTruck has proven 10 mpg is indeed attainable.

SuperTruck averaged a 75 percent increase in fuel economy, a 43 percent reduction in

greenhouse gas emissions and an 86 percent gain in freight efficiency in 24-hour, head-to-head testing against a 2009 baseline truck – all significant improvements.

Cummins partnered with Peterbilt, a division of PACCAR, for the SuperTruck project. The project objectives included development and demonstration of a highly efficient and clean diesel engine with an advanced waste heat recovery system, an aerodynamic tractor and trailer combination, and a lithium ion battery-auxiliary power unit to reduce engine idling.

The Cummins-Peterbilt SuperTruck uses the Peterbilt Model 579 with its best-in-class aerodynamic efficiency. The engine, based on Cummins industry-leading ISX15, converts



*The Cummins-Peterbilt SuperTruck made headlines in the nation's capital for its ability to save energy and reduce greenhouse gases.*

"We are honored that the Cummins-Peterbilt SuperTruck was chosen to be the backdrop for President Obama's announcement," said Wayne Eckerle, Cummins Vice President, Research and Technology. "The SuperTruck clearly demonstrates the technologies that can deliver significant fuel efficiency improvements over the next decade and beyond as we continue to develop for cost and performance attributes that will make them strong commercial successes."

Landon Sproull, Peterbilt Chief Engineer, agreed.

"The work we're doing on SuperTruck is very much in keeping with Peterbilt's global reputation for industry-leading design, innovative engineering and fuel-efficient solutions," he said. "I think it's been a terrific opportunity for us to look into the future and demonstrate what's possible."

SuperTruck's moment in the spotlight didn't end with the president. The truck was also displayed in front of the Department of Energy in Washington, D.C., where Secretary of Energy Ernest Moniz took a tour.

The DOE says if all Class 8 trucks, the big trucks typically found on the road today, were SuperTrucks, the country would consume nearly 300 million fewer barrels of oil and spend nearly \$30 billion less on fuel each year.

exhaust heat into power delivered to the crankshaft and has electronic control software that uses route information to optimize fuel use.

The SuperTruck also includes chassis refinements, improvements in the aerodynamics and other significant advances in the engine. And Peterbilt found ways to reduce weight throughout the tractor-trailer.

Eaton Corporation was also part of the Cummins-Peterbilt SuperTruck project team, developing a next generation automated transmission that improves fuel efficiency in heavy-duty trucks. Eaton's contribution included the design, development and prototyping of an advanced transmission which facilitates reduced engine operating speeds that save fuel.

Cummins and Eaton jointly designed shift schedules and other features to yield further improved fuel efficiency.

This demonstration of the Cummins-Peterbilt SuperTruck exceeded DOE goals for freight efficiency, a key trucking metric based on payload weight and fuel efficiency expressed in ton-miles per gallon. The SuperTruck achieved an 86 percent improvement in freight efficiency as well as the 75 percent fuel economy improvement over a 24-hour test cycle in December 2013.

The program goal was a 68 percent freight-efficiency increase over a 2009 vintage baseline vehicle of the same weight traveling along the same route.

# CUMMINS ENERGY SOLUTIONS BUSINESS TRANSFORMS LIVES THROUGH ENERGY

*Inspiration is not often found in the form of a weed.*



*Residents of Baringo County in Western Kenya gather stems from an invasive weed called Juliflora. Cummins Energy Solutions Business is working with the Kenyan government to use the weed to produce power using a Cummins generator.*

But when a weed can be turned into fuel for electricity, it can transform lives. And transforming lives is what inspires people like Andrew P. Stone and the Cummins Energy Solutions Business (ESB), which he has been a part of since its beginning 15 years ago.

A division of Cummins Power Generation, the ESB creates high efficiency cogeneration projects where the generator produces both electricity and usable heat from one fuel source.

The business is unique in that it operates as a small company but with global capability. ESB cogeneration systems power a sports center in China, a landfill in the United Kingdom, a tomato grower in Belgium and numerous other facilities across the world.

At the heart of ESB are Cummins' lean burn generator sets, running on pipeline natural gas or alternative fuels like an invasive weed in Africa, an ESB project now under development in Kenya.

Producing energy more efficiently is at the crux of ESB: Every 1 megawatt (MW) of cogeneration saves an estimated 2,700 tons of carbon dioxide (CO<sub>2</sub>) a year—and ultimately saves customers on their energy costs.

Since its beginning in 1999, ESB has focused on solving issues holistically for customers and most, first and foremost, want to save money.

But the business can also help customers comply with emission standards, improve the reliability of their power supply and demonstrate their commitment to environmental responsibility.

"We really have changed some people's lives," said Stone, Cummins Power Generation's Director of Project Companies, reflecting on the ESB's past. "Some businesses, without cogeneration, would have gone bust. It wasn't just nice to have. It was the difference between having a business and not having a business."

## HUMBLE BEGINNINGS

The beginning of the Energy Solutions Business is actually rooted in the end of something else. When a Cummins-Wärtsilä joint venture broke apart in 1999, the Power Generation gas business was taken back into Cummins, and ESB developed from that.

In its early years, ESB did much of its work in Europe, where governments like Belgium, Denmark and Holland were the first to recognize and reward high-efficiency electrical generation.



From Europe, ESB “project companies” sprouted in the South Pacific and the United States, and are now growing in South America and Southeast Asia.

Driving that momentum are rising energy costs coupled with improved technologies for energy-efficient systems. In its first year in business, ESB’s four-man team delivered \$1.4 million in sales. Now, sales are over \$185 million, and ESB boasts a multiregional organization of hundreds of employees.

Also called combined heat and power (CHP), cogeneration often cuts energy use in half. The systems are 85 to 90 percent efficient compared to 50 percent to 55 percent efficiency from a conventional boiler and electrical power station.

## MAKING LIVES BETTER

ESB has the know-how and resources to develop a variety of solutions, including turnkey service, spanning everything from planning to installation and even operations.

Stone and his team also work in prime power applications, where electrical generators are the only source of power. This is especially needed in parts of the world where the grid is unreliable or nonexistent.

As natural gas becomes more widely available, lean-burn gas sets from ESB have become increasingly popular as an economical and reliable power solution.

Lastly, there are renewable energy sources like biogas. Stone is eager for this growing field of technology and its ability to transform lives. Methane gas, a byproduct of landfills and water treatment processes, can be captured and turned into fuel for onsite cogeneration at these facilities. The big one on the horizon, according to Stone, is gasification of waste products from agriculture or wood.

This is where the weed in Africa comes in. *Prosopis Juliflora* was introduced to Kenya in the 1970s as the nation was facing severe drought and the death of livestock, a main source of livelihood for many. *Juliflora* was planted to stop the land from turning into desert while providing food for livestock.

The plant grew very quickly. Besides blocking native plants from water and sunlight, *Juliflora*’s thorns and pods injured livestock. Thirty years after it was introduced, *Juliflora* was declared an invasive species in Kenya.

One of the areas most affected by *Juliflora* is Baringo County in Western Kenya, a place where more than half the population lives in



**TOP** Cummins’ QSV91 engine will produce electricity in Baringo, fueled by *Juliflora*, an invasive weed.

**BOTTOM** Baringo residents receive training on how to harvest *Juliflora*.

poverty and the main sources of income are farming, fishing and ecotourism. Kenya’s *Juliflora* eradication program aims at clearing the species by putting it to good use.

The ESB is working with the Kenyan government to use *Juliflora* to fuel an energy-efficient 2 MW power plant in Baringo County that could produce as much as 8 MW if the concept works effectively.

“Besides using the crop to produce electricity, the number of jobs we’re creating for harvesting, cleaning, producing and storing the crop means work for about 1,500 local Kenyans,” Stone said.

# DAIRY AND TOURIST ATTRACTION USES COW POWER TO FUEL CUMMINS ENGINES

*Some visitors at Fair Oaks Farms are captivated by the birthing barn and the chance to see a calf welcomed into the world.*



Others can't forget the sight of 72 cows turning slowly on a rotary milking machine while many more wait patiently for their turn.

But with so much happening at the sprawling dairy and tourist attraction in Northwest Indiana, the most amazing thing may well be the hardest to see.

The dairy is turning the 1.5 million gallons of manure that its 30,000 cows produce each day into natural gas. The gas powers a fleet of more than 40 trucks with Cummins Westport's ISX12 G natural gas engines that deliver milk around the clock to processing plants in Indiana, Kentucky and Tennessee.

"Our fleet is really, really pressed hard," said Mark Stoermann, Director of Operations for AMP Americas, which partners with Fair Oaks

*A Fair Oaks truck fills up with natural gas at the natural gas station on site.*





to produce the compressed natural gas, or CNG. “We are running 42 trucks, delivering 53 loads of milk a day. Most trucks average 720 miles a day so each truck is averaging over 250,000 miles a year.”

Facing growing concern about the odor from its operations, the dairy made a critical decision more than a decade ago to begin experimenting with anaerobic digestion. Fair Oaks was looking for an alternative to the traditional disposal method of storing manure in pits until conditions were right to apply it on area fields.

Today, it has an elaborate system to get its waste to digesters where the gas is produced and the dairy is garnering attention from the likes

of The New York Times and sustainability experts around the country (to see a Cummins video on how the farm works, go to <http://www.youtube.com/watch?v=mkF6nHKxJ5o>).

The dairy had been using the smaller Cummins Westport 8.9 liter ISL G engine for most of 2013 while it waited for the new 12 Gs, knowing the engine was undersized for pulling payloads of close to 80,000 pounds when its tankers are full of milk. The new, larger engines are designed for the kind of demands the operation puts on its trucks.

The dairy estimates it is taking 2 million gallons of diesel fuel off the road annually by converting the 1.5 million gallons of manure its cows produce

*Cows on the milking machine at Fair Oaks.*

daily into fuel. The United States Department of Energy says Fair Oaks is the largest natural gas fleet in the country using agricultural waste as its primary fuel source.

Fair Oaks wants to show dairies and similar businesses around the country that converting waste to fuel is a viable and sustainable option.

“There are a lot of industries in the United States right now that are looking at CNG and there are a lot of other industries that have waste streams that could be used in anaerobic digestion,” Stoermann said. “So yes, the simple answer to your question is this is a model that can be reproduced all over the United States.”

## CORPORATE RESPONSIBILITY

# CUMMINS EMPLOYEES SET NEW RECORD WHILE MAKING A DIFFERENCE AROUND THE WORLD

*Cummins employees invested a record number of hours in community service in 2013, helping high school students master math in South Africa, teaching young women about thermodynamics in Poland, and helping people with disabilities get job skills in Minnesota, to name just a few projects.*

Total hours for the year in community improvement activities increased from 222,617 in 2012, the previous record, to 308,783 in 2013 – a nearly 40 percent increase and the new record for the Company's Every Employee Every Community (EEEC) program.

The percentage of employees participating in EEEEC activities increased from 63 percent in 2012 to 67 percent in 2013. Under the EEEEC initiative, employees can work for at least four hours on a community improvement

project on company time and more if they have the approval of their supervisor.

"I'm very happy that we had a number of projects around the world last year that made a real difference in people's lives," said Mark Levett, Vice President – Corporate Responsibility and Chief Executive Officer of the Cummins Foundation.

"I am thrilled that the participation rate is up, especially after we were pleased to add joint venture employees in this count," he said.



"We still managed to attain an increase, which is terrific."

The hours invested weren't the only record set by Cummins employees. They also removed a record amount of greenhouse gas emissions, 19,000 tons, as part of the Company's fifth Environmental Challenge (page 73). In the Challenge, employee teams compete to be selected one of the 15 best community environmental projects across Cummins.

## DEEPLY ROOTED

The Every Employee Every Community initiative started in 2005 when Cummins was looking for a way to celebrate an ethics award.

The program has grown into a Company favorite that leaders feel helps attract the kind of employee Cummins needs to be successful.

For more than 50 years, Cummins has believed building stronger communities helps build stronger markets for Cummins products, dating back to visionary CEO J. Irwin Miller, who helped organize Dr. Martin Luther King's 1963 March on Washington, D.C.

Corporate Responsibility is one of the Company's six core values, calling on Cummins and its employees to "serve and improve the communities in which we live."

The Company has more than 200 employee-led Community Involvement Teams that organize the majority of the EEEEC projects. The Company encourages employees to focus their efforts on three global priority areas where they can especially add knowledge, skills and passion:

- » Education
- » Environment
- » Social justice/Equality of opportunity

In 2013, EEEEC projects covered an incredible variety and scope from an effort to create a model village in Nandal, India, (page 92) to a program in Santiago, Chile, designed to give young offenders a second chance (page 86); from a program to teach vocational skills to students in Nigeria (page 88) to an initiative to provide library books to disadvantaged students in China (page 90).

Employees, however, routinely say they get much more out of the projects than they give in time.

"We are privileged to be able to improve people's lives in meaningful and innovative ways," said Subramanian Ravichandran, Cummins Corporate Responsibility Director in India.



*Cummins employees reroute a trail threatened by erosion at a park in Indianapolis, Indiana.*



## UNITED WAY

It was also a record year for United Way donations. Cummins employees in North America set another record for giving to the agency in 2013, raising nearly \$2.8 million, about a 4 percent increase over 2012 – also a record year.

Three Cummins locations reported 100 percent participation rates – Clovis, New Mexico., Elkhart, Indiana, and Miramar, Florida.

“I am incredibly proud of how our Cummins employees came through for the many fine agencies that depend on the United Way,” said Levett.

The Cummins Foundation matches pledges dollar for dollar, so social service organizations

in the communities where Cummins employees live and work will receive more than \$5.5 million. More than 8,500 employees contributed to the 2013 campaign.

Outside North America, Cummins has launched matching gift programs in India, China and parts of Asia Pacific over the last five years.

Through voluntary payroll deductions, Cummins employees in these regions are also able to support local non-profits whose causes are meaningful to them.

## SIGNIFICANT PARTNERSHIPS / PHILANTHROPY

Cummins continued financial support for several significant partnerships in 2013-2014, addressing a range of concerns.

*Cummins employees plant trees at a Corporate Responsibility project in Wuxi, China.*

Cummins Power Generation is working to expand the assistive technology program it started to the Courage Kenny Rehabilitation Institute in Minneapolis, Minnesota at additional locations around the world (page 80).

The Company also continues its partnership with the Cummins College of Engineering for Women in Pune and Nagpur, India, which serves women who have long been under-represented in the field of engineering.

Cummins supports these initiatives and others through its businesses as well as the Cummins Foundation and related foundations, such as the Cummins India Foundation (page 96).



# CUMMINS CHALLENGE PAYS OFF FOR THE ENVIRONMENT

*Cummins' fifth Environmental Challenge was another major success as employee-led community service projects in 2013 set a record for removing greenhouse gas (GHG) emissions.*

The Challenge is a Corporate Responsibility initiative where the Company's more than 200 Community Involvement Teams compete to have their projects chosen one of the 15 best environmental efforts of the year.

More than 11,000 employees invested more than 60,000 hours in 2013, reducing 19,000 tons of GHGs, more than four times the reduction from last year's contest.

The GHG reduction is equivalent to taking 3,950 vehicles off the road for a year and conserving 2 million gallons of gasoline.

The 15 projects judged to be the best win \$10,000 each from the Cummins Foundation to be spent on the community not-for-profit or non-governmental organization of their choice.

Here's a look at three projects singled out for special recognition:



## BEST ENVIRONMENTAL IMPACT

### A GOLDEN OPPORTUNITY TAKES SHAPE IN CHINA

It sounded like the beginning of a recipe, but when Cummins employees added straw to mushrooms, the result was success. And for farmers in China, that success translates into more money and less pollution.

Due to rapid economic development, air pollution has become a significant concern for the more than 1.3 billion people who call China home. A common farming practice often contributes to this environmental problem.

Cummins employees in Shanghai came up with a unique solution and submitted their work as part of Cummins' 2013 Environmental Challenge.

Their Golden Straw project was named one of 15 winners from around the world and earned a special recognition award for Best Environmental Impact.

In provinces throughout China, farmers are struggling with how to dispose of agricultural waste following a harvest. The cost and extra manpower required to recycle the waste often leads farmers to burn their excess straw instead.

This results in significant health hazards and environmental dangers. China produces 700 million tons of waste straw each year, 97 percent of which is burned, releasing 380 million tons of carbon emissions into the atmosphere.

In Shanghai, air pollution is an urgent quality-of-life issue. Knowing this, the project team used the business-problem solving tool Six Sigma to narrow its initial focus to air pollution and



*Cummins employees and local farmers store excess straw in shelters designed to grow and harvest mushrooms. The project was one of three receiving special recognition in the 2013 Environmental Challenge.*

ecological issues. Eighty-three employees from five Cummins entities then devised a way to help farmers reuse excess straw in a cost-efficient manner that ultimately results in increased income.

### **MARKET FOR MUSHROOMS**

Partnering with a non-governmental organization (NGO), they helped local farmers collect and store excess straw from harvests in makeshift

shelters they helped build. The straw was then reused as fertilizer to cultivate mushrooms, which in turn were sold by the farmers to supplement their income. This cycle time lasted six months.

The NGO, Enactus China, creates global sustainability through the positive power of business. Enactus says it works with 1,600 universities in 39 countries, involving more than 60,000 students a year, and is supported by hundreds of leading companies.

The five Cummins entities joined forces in 2012 as a way to combine resources in Shanghai in the hopes of delivering measurable impact and sustainable project results. The Shanghai sites involved are Cummins Filtration Co. Ltd., Cummins Engine Trading and Service Co. Ltd., Cummins China Investment Co. Ltd. Shanghai branch, Shanghai Fleetguard Filter Co. Ltd. and Cummins Inc. U.S.A. Shanghai Rep. China.

One year and more than 340 employee volunteer hours later, the results are impressive. Six thousand tons of straw have been collected from local farms. Three hundred tons of mushrooms have been harvested and sold for a total of \$120,000 U.S. dollars, all going to improve the farmers' standard of living. And perhaps most importantly, 10,800 tons of carbon emissions have been reduced.

"This was a rewarding project for everyone involved and helped turn waste into treasure," said project leader and Community Involvement Team leader Chunyan Wu.



## GROWING RESULTS

Part of their success stems from the initial groundwork laid by Cummins employees. After selecting this project, they visited an established model in a different district of Shanghai to learn more. Involving university students from the NGO ensured there would be a group with an understanding of the process that can help spread their knowledge.

Sustainability is key. Now that the farmers have learned the skills and steps required, they can carry on the progress and hopefully continue making a profit each year.

Plans are in place to implement this project in four other areas of the city over the next eight years. The project team intends to work closely with farmers and the NGO to continue teaching the skills required to cultivate the mushrooms, thereby further reducing the carbon footprint.

“Partnering with Cummins on this project was a great experience,” said Claire Hu, Corporate Development Manager at Enactus China. “It was a win-win project in that it established a creative and sustainable way to reduce air pollution and increased the annual income for our local farming communities.”

*Cummins employees take a break during a work project at of Zhuji Middle School in Xiangyang, China.*



## BEST NEW ENTRY

### WATERING A NEW CROP OF STUDENTS

It all started with a letter. And it ended with a teaching moment for students at the Zhuji Middle School.

The principal of Zhuji Middle School contacted Cummins Recon China (CXMC) to request help regarding a serious water problem at the school. Located in Xiangyang, China, the school serves more than 1,600 teachers and students who rely on drinking water from a 36-meter deep groundwater well. The well water was unsafe, causing health problems for many at the school.

Led by Peng Shao, Health, Safety and Environment Supervisor, a project team from Cummins came together to develop a safe water solution for Zhuji.

“We had monthly brainstorming discussions, and each team member had different responsibilities, like contacting different resources, designing layout or planning the process for the project,” said Dengfeng Jiang, Product Engineer and Community Involvement Team Leader.

The team used the business problem-solving tool Six Sigma to select the project theme and scope, and visited the school to conduct water quality research and build water monitoring stations.

Eventually construction began at Zhuji to install water purification equipment, including laying 100 meter-long pipes. A before-and-after comparison of water quality from the well was tested after the equipment was installed, to ensure the water was safe for Zhuji teachers and students to drink. The equipment also monitored water flow capacity to help ensure that water was not wasted.



## OTHER PROJECT BENEFITS

The quest for water safety did not end with a purifier. The project team also promoted water protection in the community, visiting a sewage treatment plant and holding a ceremony where Zhuji students and teachers took an oath to protect local water bodies.

Cummins employees distributed material on water protection in coordination with the Water Bureau, Education Bureau and the non-governmental organization Green Han River. The middle school plans to include a new environmental course with specially developed textbooks.

As a result of this project:

- » 7.8 million liters of water will be purified every year.
- » 1.3 million liters of water will be saved every year.
- » More than 3,000 community members received environmental awareness information on the importance of water protection.
- » The project benefited from strong leadership support, driven by General Manager Henry Peng.

“Henry Peng visited Zhuji with us multiple times and engaged leadership to support this project as much as possible, to engage employees and review the activities,” said Shao.

## PLANS TO EXPAND

In addition to being selected as a 2013 Environmental Challenge winner, the project also received the distinction of Best New Entry. The first-time CXMC project team already has plans to use their \$10,000 Environmental Challenge grant to further the project’s reach.

“We will use the grant funding for continued improvements to the water ecosystem at Zhuji Middle School, including a water saving device,” said Jiang. “We will also look to help other schools around Zhuji out of an unhealthy water situation.”

The success of the project at Zhuji Middle School has attracted the attention of the local Water Bureau, which will help spread this project to other schools in the area.

“There are 57 schools around Zhuji that experience the same water safety issues,” said Shao. “If we can improve the situation at Zhuji, it can be copied by others to impact more than 25,000 people in Xiangyang.”



## BUILDING COMMUNITY COALITIONS

### CUMMINS EMPLOYEES SHOW THE POWER OF COLLABORATION

Employees at Cummins’ Korea Distribution Business Unit have been cleaning the Cheonheung stream since 2009, removing bottles, cans, paper and other household trash four times a year. It was a good project, but Community Involvement Team leaders wondered if they could do something to make it great.

In 2012, Andy Choi launched a project using the business problem solving tool Six Sigma to look at how to get more companies involved in the effort so more of the stream could be covered. He would end up drafting a blueprint for officials at Cheonan City Hall to recruit more companies to join the cleanup.

The “1 Company, 1 Stream” program was born. Today, seven companies have taken areas of the stream to clean, working independently and following their own schedules. More trash is being removed from the banks of the Cheonheung than ever before.

“The environment around the stream is visually much better,” Choi said, “and community residents are grateful for our activity.”

## CHALLENGE RENEWED FOR FIVE YEARS

The Environmental Challenge has had a significant impact since it was created in 2009 to celebrate the Company's 90th birthday.

Nearly 43,500 employees have devoted a combined 247,000 hours to improving the environment since the Challenge was created.

Employees from around the world have completed 485 projects, which together have reduced more than 28,500 tons of greenhouse gas emissions. This is the equivalent of taking 4,750 cars off the road.

These kind of good deeds will keep happening. The Cummins Foundation has decided to fund the Challenge for another five years, paying for the 15 \$10,000 grants that go to each winning team for use by the non-profit or non-governmental group of their choice.



The effort to improve the environment around Cheonan was one of 15 winners in the 2013 Cummins Environmental Challenge. The project was also one of three receiving special recognition. The Korea project was honored for its efforts to build community coalitions.

### BUILDING RELATIONSHIP CRITICAL

Choi said employees were surprised to be one of the winning CITs in the Challenge. It was the first time the team had submitted an application.

Developing a relationship with city officials was critical to the success of the project, Choi said. The city was looking for a way to increase volunteerism in the area and it was in the best position to reach out to other companies.

Cummins approached city officials the first week of September in 2012 and the seven participating companies gathered less than two weeks later to talk about the possibilities.

*Cleaning the stream is a longtime project of the Cummins Korea DBU Community Involvement Team. But in 2013, the team got other companies in the city involved.*

The city would ultimately like to see more volunteer-led activities around the city. Choi believes that's possible now that people from the participating companies know each other better, and have some experience working together.

Choi said the CIT learned that many companies feel a responsibility for the environment in South Korea, especially near their operations and near the homes of their employees.

The Cummins CIT in South Korea is going to extend its reach into the community with the \$10,000 grant it received for being an Environmental Challenge winner. The money must go to a charitable group of the CIT's choice and the team has selected the Cheonan Seobu Free Meal Support Center, a non-governmental organization that works with the homeless.

# ENVIRONMENTAL CHALLENGE WINNERS

*Here's a quick look at all of the 15 winning projects in the 2013 Environmental Challenge competition.*

## **ENVIRONMENTAL PROTECTION THROUGH WATERSHED MANAGEMENT AND REDUCING DEFORESTATION** *Manjarsumbha, India*

Cummins employees worked with a local village to provide improved water access and a biogas alternative to wood burning stoves.

## **WATER CONSERVATION THROUGH THE TRANSFORMATION OF USED OIL TO BIODIESEL** *San Luis Potosí, Mexico*

The project raised awareness in the community on the importance of water conservation and the negative effects of mismanaging used vegetable oil.

## **"CATCH THEM YOUNG" – CREATING ENVIRONMENTAL AWARENESS AMONG SCHOOLCHILDREN** *Across India*

Employees created awareness among thousands of students in schools across India on the importance of preserving the environment.

## **ECO WATER SYSTEM PROJECT** *Xiangyang, China*

This project promoted safe and sustainable drinking water at a local middle school through development of water purification equipment, and also created awareness on the importance of water conservation.

## **GOLDEN STRAW PROJECT** *Shanghai, China*

This project encouraged the reuse, rather than burning, of straw as an organic fertilizer to reduce air pollution and increase income for local farmers.

## **PROTECTING THE LARGEST WATER SOURCE OF THE YANGTZE RIVER** *Xiangyang City, China*

Cummins employees worked with community partners and used Six Sigma tools to protect the Han River, including an awareness campaign and tree planting to reduce carbon emissions and conserve soil and water.

## **MODEL VILLAGE - NANDAL TRANSFORMATION** *Phaltan, India*

The project implemented improvements at Nandal Village, including watershed management technology that serves as a permanent solution to ensure sustained availability of drinking and irrigation water.





Here are some photos from winning projects in India, the United Kingdom and Mexico.

#### **COMMUNITY PARTNERSHIP FOR ENVIRONMENTAL CARE PROGRAM** *Cheonan, Korea*

This project used Six Sigma tools to create a new process for environmental protection in coordination with other local companies and the government.

#### **TOWARDS ZERO GARBAGE IN BANER WARD, PUNE** *Pune, India*

Employees replicated the Zero Garbage model in Baner Ward to establish a waste segregation and collection mechanism, as well as eco-friendly waste processing.

#### **TOWARDS WATER NEUTRALITY AROUND KOTHRUD, PUNE PLANT** *Pune, India*

This project took steps toward water neutrality at the Kothrud plant to help maintain water resources in Pune and facilitate water conservation in the community and within Cummins.

#### **CHINESE FUTURE WATER SAVING IN SCHOOL PROJECT** *Wuxi, China*

Cummins employees spread best practices for water conservation to schoolchildren, who in turn can influence their families, and reached thousands of people in the community.

#### **CREATE SAFE AND HEALTHY ENVIRONMENT FOR ELDERLY** *Pune, India*

Employees created a healthier environment at an elderly home by promoting water and energy conservation, in addition to developing an organic vegetable garden and installing a smokeless cooking stove.

#### **CLEAN ENERGY SOLUTIONS FOR FARMING COMMUNITIES** *Stamford, U.K.*

Employees designed a micro-grid solution to help a local farm generate electricity using renewable energy and energy-efficient generator sets to reduce the farm's carbon footprint.

#### **CLEAN LAKES, GREEN COMMUNITIES** *Wuhan, China*

Employees addressed water pollution in Taizi Lake, including collecting and analyzing samples for water quality, as well as forming an action plan to target the pollution source.

#### **PARK MORALES ENVIRONMENT EDUCATION PROGRAM** *San Luis Potosí, Mexico*

This project improved water conditions at Park Morales' lake through a filter system that treats 6,000 cubic meters of water each week, and educated the community on the importance of environmental balance.



# CUMMINS POWER GENERATION ASSISTS PEOPLE WITH DISABILITIES AROUND THE WORLD

## LEADER LED PROJECTS

Cummins has found the best community service projects include significant **leadership involvement**. On the following pages, see two great examples.

*Cummins employees in Mexico are designing a wheelchair for children with muscular dystrophy. In India, they are working on a device to help people with disabilities board buses. And employees in China are developing crutches with sensors to help visually impaired people.*



Cummins Power Generation's effort to build on a successful community service project in its headquarters community of Minneapolis, Minnesota, is taking many different forms around the world. But the goal is the same: helping people with disabilities.

"Cummins Power Generation is a unique company because we have a global footprint, we have a global presence and our capabilities are globally dispersed," said Cummins' Vice

*Cummins Power Generation President Tony Satterthwaite presents a toy to a child in a wheel chair at the Wuxi Welfare House in January, 2014. Cummins Generator Technologies has long supported the facility which provides therapy, rehabilitation and education to abandoned and disabled children in Wuxi.*

## **“WE WILL DO DIFFERENT THINGS IN CHINA THAN WE DO IN BRAZIL AND INDIA, AND THAT’S OK. WHAT WE REALLY WANT TO DO IS MAKE A DIFFERENCE, HAVE AN IMPACT, (AND) LEAVE A FOOTPRINT IN THIS AREA.”**

### **TONY SATTERTHWAITE**

CUMMINS POWER GENERATION PRESIDENT

President Tony Satterthwaite, president of the business unit. “What excites me about the global nature of this initiative is our ability to bring Cummins Power Generation’s capabilities to bear all over the world, in all of our communities.”

Since 2006, Cummins Power Generation employees in Fridley, Minnesota, have been using their engineering skills to help people with disabilities. They volunteer their time to modify, design and create technologies so Minnesota residents with physical challenges can operate computers and other electronic devices, including toys for children.

Through a core team of engineers and by engaging other Cummins employees, the initiative has modified over 1,500 technologies for adults, teens and children who are clients at the Courage Kenny Rehabilitation Institute. In 2012 alone, 193 employees contributed more than 1,200 hours to the effort.

Twelve additional Cummins Power Generation locations have now also launched Corporate Responsibility projects around assistive technology as part of the effort to expand the project globally.

Power Generation leaders facilitate best practice sharing, provide both advice and financial support, and recognize outstanding work, affirming that Corporate Responsibility is important to the Company.

Satterthwaite has played a key role in taking the project global. He says he wants to maintain the grassroots spirit that helped make the Minneapolis project so successful, but with the support that Cummins Power Generation can bring to bear to remove obstacles and help initiatives reach their full potential.

So employees might focus on adapting toys in one location while workers in other places might redesign wheelchairs and crutches or any number of other things.

“We will do different things in China than we do in Brazil and India, and that’s OK,” Satterthwaite said. “What we really want to do is make a difference, have an impact, (and) leave a footprint in this area.”

Cummins Power Generation’s interest in assistive technology can be traced back to 2005 when then business unit President Tom Linebarger toured what at that time was called the Courage Center for people with disabilities in Minneapolis.

Linebarger, now Chairman and Chief Executive Officer of Cummins, saw a need that matched the capabilities of the Company’s workforce. He asked a member of his staff to create an engineering team to look into adapting toys and electronic devices for people with physical challenges at the center.

The partnership took off and has been repeatedly recognized as one of the best examples of what can happen when employee skills are leveraged to address a community need.





*Cummins employees work on assistive technology projects for the effort's original partner, the Courage Kenny Rehabilitation Institute in Minneapolis, Minnesota.*

Satterthwaite became the leader at Cummins Power Generation in 2008 after Linebarger was named President and Chief Operating Officer for all of Cummins.

Over the next two years, Satterthwaite studied what made community service projects successful, coming to the conclusion that four elements were critical to the business unit's work on assistive technology:

- » There was a real societal need.
- » The initiative utilized employee skills and talents.
- » Leaders were actively engaged in providing support and resources.
- » The project tapped into the unique capabilities of Cummins Power Generation.

He asked two top members of his leadership team to study "where could we take this?" They came to the conclusion that the same elements existed in many communities with Cummins Power Generation facilities around the world.

By the end of 2013, projects were underway in the China, India, South America, the United Kingdom and elsewhere.

"Tony and the leadership team at Cummins Power Generation are fantastic role models of the Company's Corporate Responsibility core value," said Diane Peterson, the former Corporate Responsibility Leader in Cummins Power Generation who took a new position in Human Resources in 2014.

"They take the time to understand the initiatives, clear obstacles and offer advice," she added. "They motivate and give our locations around the world the freedom to pursue their passions."

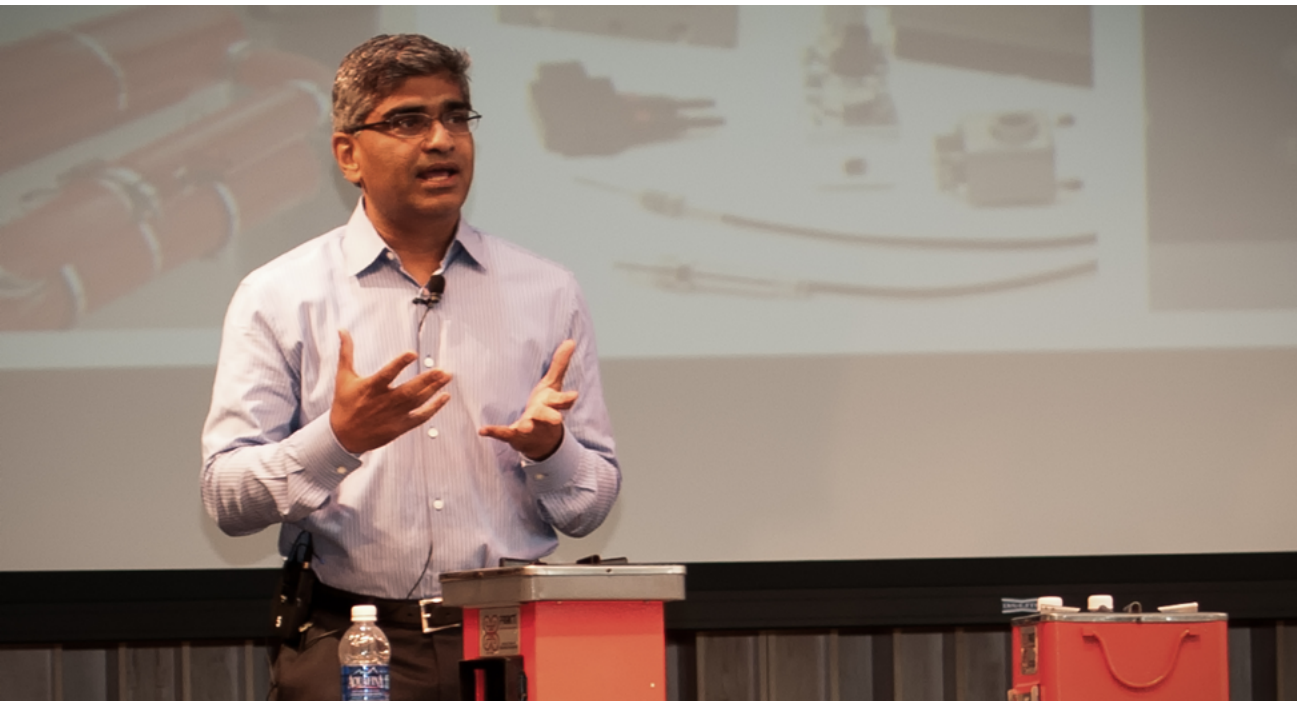
Satterthwaite says the business unit is on a journey and he's not really sure where it will end.

"What I'd like to be able to say, looking back, is that we made a big difference in the area of assistive technology through the capabilities of our Company, the energy and efforts of our people, and the focus of our business."



# A GRANDMOTHER'S COOKING LAUNCHES GLOBAL ENVIRONMENTAL PROJECT

*Srikanth Padmanabhan distinctly remembers the smell of the wood his grandmother used to cook with, the black smoke that would fill the air whenever she started a fire and the soot that lined the kitchen wall. But what stands out today when he thinks about his grandmother is the sound of her chronic coughing.*



Padmanabhan, Vice President and General Manager for Cummins Emission Solutions (CES), grew up in Chennai, India, the country's fourth-largest city. His maternal grandparents lived in a village nearby and he would often visit them during school breaks in part to enjoy his grandmother's delicious cooking.

"I had no clue why she would cough," he said. "But then I learned about clean cook stoves and I realized that the smoke coming out of my grandmother's fire pit actually impacts you and that's why she coughed."

*At the design competition launch in 2012 in Columbus, Srikanth Padmanabhan describes growing up in India and the reasons clean cook stoves were chosen as the first global Corporate Responsibility project for Cummins Emission Solutions.*



*A Cummins employee works on his team's cook stove design in Columbus, Indiana.*

His grandmother would go on to live until 97, but Padmanabhan remembers that everyone in the village, for a very long time, used firewood. Statistics show that many people who depend on wood-burning cook stoves have not been as fortunate as his grandmother.

According to the Global Alliance for Clean Cookstoves, daily exposure to the harmful smoke from traditional cooking practices is one of the leading causes of death around the world, and one of the least publicized. Four million premature deaths each year result from smoke inhalation from traditional cook stoves and open fires. Women and young children are the most affected.

Padmanabhan and the CES Business team wanted to make a difference with a vision for a global corporate responsibility project that put employee skills to work on a problem closely related to the products they design and manufacture.

“Being a division that produces products that reduce harmful engine emissions around the globe, we felt that it was appropriate that we should focus on the environment,” Padmanabhan said.

CES employees zeroed in on indoor air pollution resulting from poorly ventilated cook stoves. Padmanabhan shared with his CES colleagues his experiences and his vision for a global corporate responsibility project. Together, they brainstormed ways to make their efforts sustainable.

### **A NATURAL FIT**

Padmanabhan and his leadership team quickly came to the conclusion that focusing on clean cook stoves was a natural fit. It addressed a critical global need and aligned well with CES' business focus to reduce emissions from engines.

So began Project S.T.E.A.M. – Standards, Testing (and design), Education, Application

and Monitoring – CES' first global Corporate Responsibility project. A clean cook stove design competition was launched in August, 2012, in Columbus, Indiana.

Teams from CES locations around the world were tasked with designing a new or improved, clean-burning cook stove along with a marketing plan including its unique characteristics.

Twenty-seven teams submitted concepts from multiple Cummins sites. The top five teams, from Cummins facilities in Germany, India and the United States, were selected as finalists during an extensive judging process held in 2013.

Cummins employees, including experts in combustion, technology and environmental strategy, as well as a former cook stove business owner, judged all of the project submissions.

Prototypes of the top five designs were built at the manufacturing facility of Prakti Design in Chennai. The Cummins' designs were then shipped to Maharana Pratap University of Agriculture and Technology in Udaipur, India, for testing.

A group of engineers from Cummins Research and Technology India Ltd., joined forces to form Team EcoFlame and were selected as the winner of the design competition in late 2013.

EcoFlame's design not only meets all Indian government requirements for thermal efficiency and emission of both particulate matter and carbon monoxide, but it is also able to lower particulate emissions by a factor of four compared to current Prakti stoves.

Prakti, one of the world's top cook stove manufacturers, partnered with Cummins in the competition and believes it generated many ideas that could have practical applications for future cook stoves.

"The Prakti/Cummins partnership proved to be a great success," said Mouhsine Serrar, co-founder and CEO of Prakti Design. "Prakti would like to thank all the participants for a wonderful effort and the significant contribution to [our] technology road map for the future."

EcoFlame's stove will now go into production as part of the business unit's partnership with Prakti.

"What we liked best about the competition was that it compelled us to think beyond stereotype boundaries," said EcoFlame Team Leader Ambarish Khot. "It united us to engage our technical expertise for social welfare."

## THE NEXT CHALLENGE

Padmanabhan is pleased with how the project has turned out.

"The idea of building the prototypes and testing them at a university in India, and the whole exercise being global, was novel and elegant," he said. "I am enormously pleased at the outcome."

The new stoves will be tested in villages in India and China that are near Cummins facilities where employees can help with the adoption. In addition, CES will work with EARTH University in Costa Rica, which teaches sustainable agriculture to its students from around the world, to make those students familiar with the stoves.

Other projects to design better cook stoves have faltered at this point, unable to overcome years of tradition around cooking over an open flame without proper ventilation.

But Padmanabhan is enthusiastic, believing the project can build on community outreach efforts taking place at Cummins locations around the world.

"We are going to show that we can actually make a difference," he says as he thinks back to the woman who helped inspire it all. "We can use our collective ingenuity to do something really terrific."



*Members of Team EcoFlame, the winning team in the cook stove competition from Cummins Research and Technology India Ltd., gather around their winning entry.*

**"WHAT WE LIKED BEST ABOUT THE COMPETITION WAS THAT IT COMPELLED US TO THINK BEYOND STEREOTYPE BOUNDARIES. IT UNITED US TO ENGAGE OUR TECHNICAL EXPERTISE FOR SOCIAL WELFARE."**

**AMBARISH KHOT**  
ECOFLAME TEAM LEADER

## REINVENTING YOUTH THAT LOST THEIR WAY

### GLOBAL REACH

Cummins is committed to seeing that its **Corporate Responsibility** value has a global reach. On the following pages, find four examples.

*Everyone deserves the opportunity to remake themselves, including juvenile offenders. This is the driving belief behind the Reinventarse program in Santiago, Chile.*

Reinventarse, which is the Spanish translation for “reinvent,” was started in 2011 at the Komatsu-Cummins distributor as a social rehabilitation program for young people who get in trouble with the law.

“The program began with 12 young people from northern Santiago, who had each committed a crime and been sentenced on probation,” said Alejandra Gonzalez, Community Involvement Team Leader for Cummins Chile. “Reinventarse aims to break the cycle of crime and reintegrate these young people back into society.”

*Participants in the Reinventarse program are mentored by employees from Komatsu-Cummins to help them learn job and social skills.*

The program is built on five pillars:

- » Education through high school and technical training, including basic mechanics, interpretation of plans, welding and operation of heavy machinery.
- » Support to strengthen and develop family connections.
- » Personal development to foster social skills and resilience.
- » Job assistance to support long-term economic stability.
- » Outdoor activities and social meetings to increase participants’ cultural, social and intellectual capital.

Eligible offenders have completed schooling through eighth grade, possess a clean record for sexual crimes or drug addictions and are at least 18 years old.







Komatsu-Cummins employees are an essential part of the training process. In addition to teaching many of the technical modules, employees serve as mentors for young offenders throughout the entire process.

“Employees act as a positive role model who the young offenders see to be valued by society,” said Gonzalez. “They support the youths in four areas: life and working habits, extracurricular activities, instrumental and evaluative networks (to provide advice and guidance about their future) and personal and educational support.”

Employees even instill a sense of giving back in the young offenders, engaging them in community involvement activities such as Kids Day where the youth interacted with children in need, and created and performed a play.

To date, 35 young offenders have successfully completed the Reinventarse program.

From this, 25 students have joined the workforce and continue to maintain their positions. Sixteen were hired by Komatsu-Cummins.

“Reinventarse graduates have gone on to work in different positions, such as mechanical assistant, welder assistant, forklift operator or even administrative assistant,” Gonzalez said.

After evaluation of the program’s success and just two years after its implementation, the Reinventarse Foundation was formed.

“The purpose of the Reinventarse Foundation is to consolidate programmatic efforts to battle delinquency, while also inviting other companies to join this effort,” said Christopher Lathrop, Executive Director of the foundation. “Companies can partner to provide an economic contribution to the program, as well as offering potential employment to graduates.”

*Reinventarse graduates like Kevin Pizarro, right, have found employment with companies like Cummins. Many Komatsu Cummins employees volunteer with the program, including Ricardo Antonio Molina Sepulveda who served as a sponsor and is now Kevin’s manager.*

Companies that have joined in support include entities from the Komatsu-Cummins group, ENDESA group and FAVIMA Enterprises.

Next, the Reinventarse Foundation looks to increase the number of companies within their network to provide jobs for program graduates and sponsor employee volunteer opportunities. Additionally, the program will expand into new territories. The goal is to add at least 10 new companies and reach an additional 30 young offenders by the end of 2014.

“We hope to share Reinventarse’s intervention model with other public policy programs and all who wish to collaborate on this important issue,” Lathrop said.

The Reinventarse program was recently recognized for its innovation by the Chilean North American Chamber of Commerce in its 2013 Good Entrepreneurial Citizen awards ceremony.

The results look promising. Seven out of 10 young offenders who are hired maintain their working positions after six months post-graduation. Reinventarse follows up with graduates and, according to Lathrop, after the first year recidivism is not a concern.

“None of the 35 youths who have gone through the program have returned to delinquency,” he said.

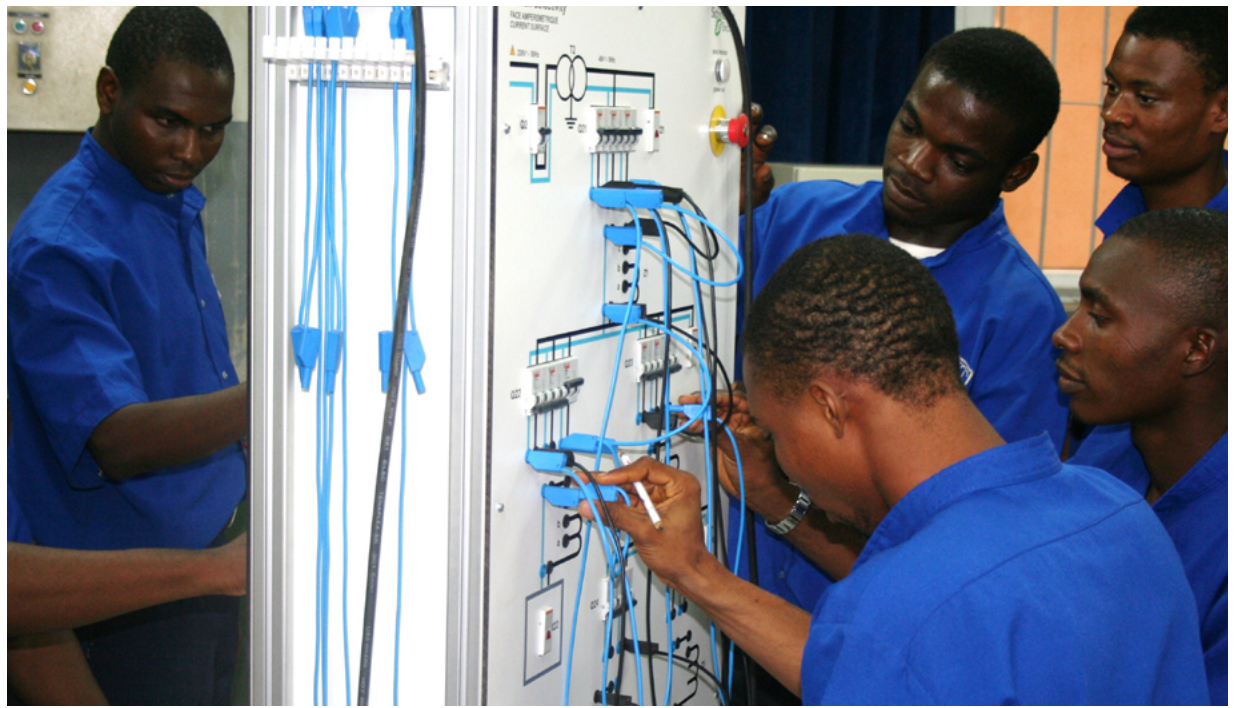
# UPDATE: BUILDING SUPPORT FOR BRINGING TECHNICAL EDUCATION TO STUDENTS

*Partnerships are a key part of TEC: Technical Education for Communities. Building alliances with businesses, government and non-governmental organizations is critical to TEC's work addressing the global skills gap. In 2013, another major milestone was reached in the program – an extensive TEC business coalition has formed in Lagos, Nigeria.*

TEC is the Cummins initiative targeting the technical skills gap through local vocational education programs. It started at sites across the globe, including Morocco, Turkey, China and India. The coalition in Nigeria marks the first agreement between Cummins and other organizations to support TEC.

TEC delivers a standardized education program and tools to help education partners develop market-relevant curriculum, teacher training, career guidance and the practical experience needed by students.

*Students learn at the Institute for Industrial Technology in Lagos, Nigeria, where the most extensive coalition has formed so far as part of Cummins' program called TEC – Technical Education for Communities.*



*Cummins believes there is a technical skills gap around the world.*

While TEC's standardized program includes a global reach, coalitions are essential to helping local schools identify gaps in their existing programs and improve education outcomes in the community.

The TEC partnership in Nigeria brings together businesses and non-governmental organizations including the Institute European of Cooperation and Development (IECD), Schneider Electric and the manufacturing company CFAO as well as Cummins to support a school partner, the Institute for Industrial Technology (IIT).

IIT was a natural school partner for TEC. The school was selected because of its successful track record and strong management team. To help augment IIT's solid foundation, the TEC coalition is working first to supplement the school's tools and equipment. The partners are also planning for the upcoming school year, facilitating student recruitment and curriculum improvements.

"Establishing a strong TEC partnership in Nigeria is a significant milestone in Cummins' journey to build coalitions that work to fill the global skills gap and help communities around the world thrive," said Mark Levett, Vice President - Corporate Responsibility and CEO of the Cummins Foundation.

Cummins hopes that TEC will increase access to good jobs and develop a stronger and growing employment base in communities across the globe.

"Communities around the world deserve improved educational outcomes and jobs that make families and communities stronger," said Mary Chandler, Corporate Responsibility Director of Global Strategic Programs and Planning, and the TEC Program Leader.

Xavier Boutin, IECD Executive Director, agrees. "TEC aligns well with IECD's Seeds of Hope vocational training program. This partnership is an important step to helping more people in Nigeria develop the skills they need to acquire good jobs, which will strengthen communities. We are pleased that these companies are committed to communities and helping address this need."

There are many ways that education, government and private partners can support TEC – helping students by providing internships, mentoring and good jobs; assisting education partners and encouraging governments to incentivize teaching and learning. Coalition building is vital to filling the skills gap.

"It's great to see a coalition like this come together to address a critical need," said Gilles



Vermot Desroches, Senior VP Sustainability, Schneider Electric and General Delegate of the Schneider Electric Foundation. "It's going to take global companies and organizations who understand the need to get involved and find solutions – it helps our communities be successful."

TEC is quickly gaining partnership momentum at other global sites, as well.

In China, for example, a coalition has come together to support improvements at the Chongqing Industry Polytechnic College. Partners include Chongqing Changan Visteon Engine Control Systems, Exedy Chongqing and POSCO China Chongqing Processing Center.

"Our local economies are only as strong as the communities in which we live and work," Levett said. "We must actively engage with students, teachers, schools, non-profits and governments to partner in developing our healthy communities of tomorrow."



# CUMMINS EMPLOYEES IN CHINA INSPIRE RURAL STUDENTS THROUGH BOOKS

*Sunzhuang Elementary School Principal Wenfang Tian says she believes the Cummins Library established at her school in 2013 will help students in two critical ways.*

The books, furniture and equipment donated by the Company and its employees to the school in Xiang'yang city will help students acquire the reading skills they need to be successful in life, she said.

But Tian also hopes her students will be inspired by the concepts of community service and global involvement rooted in the project, the 100th such library established by Cummins in China in partnership with The Library Project, a not-for-profit organization devoted to establishing libraries in rural and under-served elementary schools and orphanages.

"Education is key to our nation's future and I believe these books, as well as the corporate citizenship example Cummins demonstrated, will not only improve kids' extracurricular reading, but also inspire them and help them explore in the sea of knowledge outside the classroom," Tian said.

Since the initiative started five years ago, various Cummins entities across China have donated more than \$250,000, providing some 90,000 books as well as furnishings and more to primarily rural schools in China. The schools serve about 50,000 low-income students.

The Cummins Library Project provides two kinds of help to schools, establishing either

reading rooms in available space or making book donations to existing libraries, said Zhang Hongjie, Corporate Responsibility Leader for Cummins China.

*Students and adults celebrate at one of the 100 libraries established by the Company across China in conjunction with The Library Project. Cummins entities across the country have donated 90,000 books as part of the effort.*





“Reading rooms are donated to a school that has an empty room that can act as a library,” he said. “That room is then filled with children’s books, bookshelves, tables and chairs. Book donations are provided to schools that have tables, chairs and book shelves, but not enough quality children’s books for children to read.”

The partnership started when Cummins employees in Xi’an, China, began working with Tom Stader, an American who was living in Dalian, China, to establish a library in rural Shaanxi, China. Stader had established two earlier libraries working with some friends.

The collaboration between Stader and Cummins demonstrated what was possible if a company’s employees were engaged to take an active role in creating a library. Cummins China donated \$50,000 to Stader’s charitable organization and the effort quickly took off.

Since 2006, The Library Project, Stader’s organization, has put more than 500,000 children’s books into the hands of over 315,000 young readers in China. Cummins is one of several corporate sponsors, which also include Land Rover, Jaguar, Pratt & Whitney, Siemens, and United Technologies.



“Cummins has an incredible team in China that is very dedicated to improving the education that students are receiving in rural primary schools,” said Stader, whose organization expanded into Vietnam in 2013.

Hongjie said about 80 percent of the libraries donated by Cummins and its employees have been located in rural China and each school has faced financial challenges that made it difficult to purchase quality children’s books.

“Normally, these schools have an average number of books under 10 for each student, most of the time much less than 10,” he said.

“Each school is also financially incapable of purchasing books by themselves.”

Education is one of Cummins’ key corporate responsibility focus areas along with the environment and social justice. Leaders and

*Cummins Vice President Tracy Embree, President - Cummins Turbo Technologies, hands out books at a 2011 event.*

employees, alike, say they feel good about making a difference in such an important area.

“As a local resident and a member of this community, I am extremely proud to be a part of Cummins, and to witness the establishment of the 100th library in Xiang’yang city,” said Dongfeng Cummins General Manager Wang Ning in his opening speech at a ceremony dedicating the latest library. The engine plant is located in Xiang’yang.

“Since our first Cummins library in 2008, over 8,000 Cummins employees across the nation have been dedicated to improving students’ educational environment through a variety of meaningful projects like this,” he said.

## CUMMINS CREATES MODEL VILLAGES IN INDIA

*The future seemed very bright for Dhyaneshwar Kolekar, a 10-year-old boy growing up in Nandal, a poor village not far from Cummins' Megasite in Phaltan, Maharashtra, India.*



*A village resident in the model farming program at Nandal shows some of his produce to Cummins employees including Marya Rose, Cummins Vice President and Chief Administrative Officer.*

He was excelling not only in his studies, but in music and sports, too. But then one day he had trouble threading a needle at a special camp to test children's eyesight that was created as a result of a Community Impact Six Sigma project at Cummins.

Dhyaneshwar was eventually diagnosed with cataracts in both eyes. Doctors said he could lose his sight if he didn't get surgery right away. The boy underwent operations early in 2013 and today Dyaneshwar's future is once again filled with promise.

It's one of many success stories from Cummins India's Model Village Program, a concerted effort to improve the quality of life in Nandal village. Using techniques like Six Sigma, the business process improvement tool,

*Dhyaneshwar Kole reads a book at Nandal after having been successfully treated for cataracts discovered at a health clinic that was part of Cummins' Model Village Program.*



more than 800 employees have put their skills to work, investing about 3,000 hours to help Nandal develop economic opportunities, upgrade sanitary conditions, improve access to water and healthcare and much more.

"It is most fulfilling to see the multi-fold benefits of the Model Village Program and its positive impact in Nandal," said Subramanian Ravichandran, head of Corporate Responsibility at Cummins India. "The efforts of our employees coupled with the resilience of the villagers have transformed Nandal into a sustainable, largely self-sufficient village."

Cummins' Megasite was inaugurated in January 2011, about 110 kilometers from Pune, a city of about 5 million. The 300 acre-site will eventually be home to around 10 Cummins

facilities. The Company's eighth facility was inaugurated early in 2014.

As part of the site's development, Cummins India officials are committed to helping improve the quality of life in nearby villages in keeping with the Company's Corporate Responsibility value to "serve and improve the communities in which we live."

The Model Village Program began in 2011 with the goal of identifying the many fundamental needs in Nandal, the poorest village in the area. The Company developed a holistic plan spanning four or five years to address the village's access to water, agricultural resources, sanitation and health care.

For example, to resolve the village's water scarcity, a long bund or barrier was built to harvest rain water and Cummins persuaded the government to repair the village's existing percolation tank.

The Company also worked with experts from the Agriculture Development Trust to conduct soil tests around the village to determine crop varieties that would reap the maximum yield.

To improve sanitation, villagers worked with Company employees to help build low-cost, low-water toilets as part of another Six Sigma

project. The toilets were accompanied by an education effort on the importance of hygiene to the collective health of village residents.

Finally, the program addressed health care in Nandal by providing multiple health "check-up" camps like the one Dhyaneshwar attended. About half the villagers have been examined as part of this initiative and more than 25 were diagnosed with cataracts and underwent surgery.

Improving villages is critically important in India. If more people can find work and fulfilling lives in their home villages, they will be less likely to move to large urban areas where many end up living in extreme poverty. These crowded, impoverished areas have become a major challenge for the country's large cities.

Ravichandran said while the village has benefitted from the Model Village program he believes Cummins employees have also gotten a lot out of the project.

"We are privileged to be able to improve people's lives in meaningful and innovative ways," he said.



## HE QUIETLY BUILDS STRONGER COMMUNITIES

*Quiet, unassuming and humble, Subramanian Ravichandran does not immediately strike you as someone who regularly inspires hundreds of his co-workers to give back to their communities.*

It's the commitment of Cummins' employees that's critical to the Company living its Corporate Responsibility value. Here are two employees who are making a difference.



Subramanian Ravichandran pumps water at the village of Manjarsumbha near Cummins Generator Technologies Plant in Ahmed Nagar.

But since he became Cummins India's Corporate Responsibility Leader in 2010 after more than 35 years as an engineer with the Company, the record speaks for itself. Cummins India employees have put together an impressive list of community service projects, including:

- » The Model Village project in Nandal near Cummins' Megasite, where employees are working with village residents to improve health care, sanitation, water supplies and more (page 92).
- » The Zero Garbage initiative in Pune, where employees instituted a massive recycling project now spreading to other parts of the city that's reducing the garbage sent to a troubled landfill.
- » The Padarwadi power project, in which employees in collaboration with IIT Bombay developed a generator running on vegetable oil so residents of a remote village no longer had to carry rice up a small mountain for milling.

The man known simply as "Ravi" around the Company is quick to credit the ingenuity and compassion of his fellow employees.

But those who know him best say it's no coincidence that nearly a third of the winning projects in the Company's Environmental Challenge competition (page 73) have come from Cummins India teams since he became Corporate Responsibility Leader.

In 2013, Ravichandran was named a J. Irwin Miller Award winner, one of the highest honors Cummins leaders can bestow on an employee.

"Ravi is a deep thinker and a very empathetic listener," said Nagarajan Balanaga, Vice President – Human Resources at Cummins India. "When he visits communities, he is able to quickly connect Cummins' skills with a community issue and he is so selfless in his approach that stakeholders completely trust his intentions."



# CHILD DEVELOPMENT IS THIS BAKER'S RECIPE

*People around the world know Victoria Baker's passion for early childhood development. It transcends nearly every language or cultural barrier she has ever encountered, from Columbus, Indiana, to Beijing, China, and many points in between.*



*Victoria Baker greets Indiana Gov. Mike Pence who made a surprise visit to the Cummins Child Development Center in Columbus, Indiana, to name Baker a Sagamore of the Wabash.*

"To see Vicci work with a small child is like watching a painter turn a blank canvas into a colorful and wondrous work of art," said Thomas J. Milvert, president of the Columbus, Indiana Area Down Syndrome Support Group.

"Her love, patience and creativity along with a natural ability to sense the unique needs of each child are the perfect combination for nurturing the youngest in our community."

As Director of Global Child Development Centers, she has been part of child development projects for Cummins in China, India, and around the United States.

She has also donated hundreds of hours to Cummins' Corporate Responsibility projects across the globe, helping orphans in China, Native-American children in Minnesota, low-income children in Indianapolis and boys and girls whose families have been shattered by domestic violence in Columbus, Indiana.

Baker also oversees the state-of-the-art Cummins Child Development Center, noted for its innovative approach to pre-school child development in the Company's headquarters city of Columbus, Indiana.

In 2013, during a surprise visit to the center, Indiana Gov. Mike Pence in 2013 named Baker a Sagamore of the Wabash, the highest honor a governor can bestow on a citizen of the state.

"We thank you for your commitment to ensuring this state, nation and this world are better for the next generation and generations to come," Pence said. "You truly are one of Indiana's finest."

## CUMMINS PHILANTHROPY: SUPPORTING EMPLOYEE PASSIONS AND SKILLS

*The Cummins Foundation, one of the oldest corporate foundations in the United States, has played a critical role in hundreds of initiatives since its creation in 1954.*

Cummins wants to use its philanthropy to support employee efforts using their skills and passions to build stronger communities. Giving dollars, however, is not a central component of the Company's Corporate Responsibility program.

In 2013, Cummins invested more than \$16.3 million in corporate responsibility efforts to support the 67 percent of employees participating in the Every Employee Every Community program. The Company's total investment includes about \$7.4 million in grants from the Cummins Foundation.

The Foundation grants covered a wide range of activities in 2013 that included significant employee involvement, from \$75,315 for the Library Project in China (page 90), to \$49,030 for the Zero Garbage initiative to increase

recycling in Pune, India, to \$50,000 for the Gleaners Food Bank in Southern Indiana.

The Foundation also paid for the \$10,000 grants that go to the 15 top projects in the Environmental Challenge. The grants can be spent on the not-for-profit or non- governmental organization of each winner's choice.

The Foundation focuses primarily on communities where Cummins facilities are located and in support of the Company's three global priorities: education, the environment and social justice/ equality of opportunity.

In 2013, about 48 percent of the Foundation's spending went toward social justice/equality of opportunity activities while 42 percent went toward education initiatives and 10 percent went to environmental efforts.

In addition, a Cummins-supported foundation in India gave out grants totaling \$883,656 in 2013. The Cummins India Foundation, established in 1990, supports higher education, energy, the environment and local infrastructure projects. Its grants are included in the \$16.3 million in Cummins overall spending on corporate responsibility.

Finally, some philanthropic spending is made by individual business units within Cummins – just over \$2.1 million in 2013.

A list of Cummins' larger philanthropic contributions and projects during 2013 is included on the following pages:

GRANTEE ORGANIZATION	COMMUNITY	GRANT OR DONATION	CUMMINS FOUNDATIONS	CUMMINS INC.
<b>Education</b>				
<b>EARTH University Foundation</b> <i>Matching grant to establish six endowed scholarships and one endowed professorship</i>	Guácimo, Limón, Costa Rica	\$1,000,000		
<b>Community Education Coalition</b> <i>Two-year grant to Busy Bees Academy for low-income pre-K children</i>	Columbus, Indiana	\$480,000		
<b>Cummins College of Engineering for Women (CCEW)</b> <i>Purchase equipment to augment the infrastructure in project laboratories for mechanical, instrumentation, electronics and information technology</i>	Pune, India	\$403,208		
<b>Jackson County Education Coalition</b> <i>Advanced manufacturing lab and planning grant</i>	Seymour, Indiana	\$333,333		
<b>Institute European of Cooperation and Development (IECD)</b> <i>Three-year partnership for TEC: Technical Education for Communities (Cummins, Schneider Electric, CFAO and IIT)</i>	Lagos, Nigeria	\$250,000		
<b>Save the Children</b> <i>Disaster relief supporting Education in Emergencies program</i>	Global	\$250,000		
<b>Phaltan Engineering College</b> <i>Construction of a separate classroom</i>	Pune, India	\$191,259		
<b>Ivy Tech Foundation</b> (through GlobalGiving) <i>Year Two - Graduation Coaches program</i>	Columbus, Indiana	\$175,000		
<b>Beacon Foundation</b> (through GlobalGiving) <i>Funding for three years to support government-run underprivileged secondary schools (years 9-12) across Australia</i>	Australia	\$165,000		
<b>LeMoyne-Owen College</b> <i>Matching grant to establish a Cummins endowed scholarship</i>	Memphis, Tennessee	\$150,000		
<b>Mind Research Institute (ST Math)</b> <i>Educational partnership to implement Spatial Temporal (ST) Math in designated regions of the United States</i>	United States	\$100,000		
<b>Strategic Twin-Counties Education Partnership</b> <i>Root cause identification and strategic plan for improving student achievement</i>	Rocky Mount, North Carolina	\$100,000		
<b>Success for All Foundation, Inc.</b> <i>Educational partnership focusing on standards-based curricula for early childhood through middle school in designated regions of the United States</i>	United States	\$100,000		
<b>The Library Project</b> <i>Establish elementary school libraries as part of the China education initiative</i>	China	\$75,315		
<b>Gabriela Mistral School</b> <i>Provide a better educational environment by improving the infrastructure of the school</i>	San Luis Potosí, Mexico	\$73,200		
<b>Rowan Gate Primary School</b> (through GlobalGiving) <i>Purchase a new boiler system</i>	Wellingborough, Northamptonshire, U.K.	\$67,000		
<b>United Way of Greater Cincinnati</b> <i>Address unemployment and low educational attainment</i>	Walton, Kentucky	\$60,000		

GRANTEE ORGANIZATION	COMMUNITY	GRANT OR DONATION	CUMMINS FOUNDATIONS	CUMMINS INC.
<b>Education (<i>continued</i>)</b>				
<b>Building Tomorrow, Inc.</b> <i>Matching grant for Director of Development position</i>	Indianapolis, Indiana	\$50,000		
<b>McDowell Adult Education Center</b> <i>Support a computer lab for online General Educational Development (GED) testing to meet new state requirements</i>	Columbus, Indiana	\$46,900		
<b>Chhindwara Project</b> <i>Sponsorship for Center of Excellence</i>	Chhindwara, India	\$33,458		
<b>Malcolm C. Hursey Elementary School PTA</b> <i>Support for the KidsGrow! Schoolyard Garden program</i>	North Charleston, South Carolina	\$29,200		
<b>Carolina Youth Development Center (Charleston Orphan House, Inc.)</b> <i>Provide 50 children and families with a six-week summer literacy program</i>	North Charleston, South Carolina	\$25,000		
<b>SA Tool, LTD</b> <i>Purchase tools for the TEC: Technical Education for Communities school</i>	Casablanca, Morocco	\$17,900		
<b>Tennessee Technological University Foundation</b> <i>Support the creation of a Volunteer Skills Matching Application for the science, technology, engineering and mathematics (STEM) initiatives</i>	Cookeville, Tennessee	\$16,900		
<b>Tsinghua University</b> <i>(through GlobalGiving) Dr. Lyn Scholarships</i>	Beijing, China	\$14,400		
<b>Batley Girls High School</b> <i>(through GlobalGiving) Construction of science and humanities structures</i>	Batley, West Yorkshire, U.K.	\$12,800		
<b>Dunkirk City School District</b> <i>Tabletop CNC machine for the technology classroom</i>	Dunkirk, New York	\$12,771		
<b>Beijing Institute of Technology</b> <i>(through GlobalGiving) Dr. Lyn Scholarships</i>	Beijing, China	\$10,400		
<b>Huazhong University of Science and Technology</b> <i>(through GlobalGiving) Dr. Lyn Scholarships</i>	Hubei, China	\$10,400		
<b>Shanghai Jiao Tong University</b> <i>(through GlobalGiving) Dr. Lyn Scholarships</i>	Shanghai, China	\$10,400		
<b>Tianjin University</b> <i>(through GlobalGiving) Dr. Lyn Scholarships</i>	Tianjin, China	\$10,400		
<b>Wuhan University of Technology</b> <i>(through GlobalGiving) Dr. Lyn Scholarships</i>	Hubei, China	\$10,400		
<b>Xi'an Jiao Tong University</b> <i>(through GlobalGiving) Dr. Lyn Scholarships</i>	Xi'an, Shaanxi, China	\$10,400		
<b>International School of Columbus</b> <i>Operating support</i>	Columbus, Indiana	\$10,000		
<b>Park View Elementary School</b> <i>Furnish a parental involvement resource room</i>	Cookeville, Tennessee	\$10,000		
<b>Tembaletu Trust</b> <i>(through GlobalGiving) Environmental Challenge grant recipient</i>	Pietermaritzburg, South Africa	\$10,000		
<b>Youth Encouragement Services, Inc.</b> <i>Support the YES after-school and summer programs for at-risk youth in three underserved areas</i>	Nashville, Tennessee	\$10,000		



GRANTEE ORGANIZATION	COMMUNITY	GRANT OR DONATION	CUMMINS FOUNDATIONS	CUMMINS INC.
<b>Environment</b>				
<b>Hands on Nashville</b> <i>Home Energy Savings Audit program</i>	Nashville, Tennessee	\$145,000		
<b>Daisy Chain</b> (through GlobalGiving) <i>Improve 200 square meters of wetland nature area to be used for therapy and outdoor education</i>	Norton, Stockton on Tees, U.K.	\$75,610		
<b>Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA)</b> <i>Zero Garbage Project - Replicate the project at Baner/Balewadi to recycle waste and generate electricity</i>	Pune, India	\$49,030		
<b>Los Ojos de Dios</b> <i>Construction of a sustainable water recycling system</i>	Chihuahua, Mexico	\$25,000		
<b>The Green Volunteer of Chongqing</b> (through GlobalGiving) <i>Environmental training for the key members of 16 student societies of 14 universities in Chongqing</i>	Chongqing, China	\$21,000		
<b>Charyou Youth Volunteer Service Center</b> (through GlobalGiving) <i>Support for the Charyou Youth Volunteer Service Center</i>	Shanghai, China	\$17,000		
<b>XiangYang City Association of Environment Protection</b> (through GlobalGiving) <i>Establish drinking water treatment units at Zhuji Middle School</i>	Hubei, China	\$16,000		
<b>Shanghai Roots &amp; Shoots</b> (through GlobalGiving) <i>Environmental education project</i>	Shanghai, China	\$14,140		
<b>Global Village of Beijing Environmental Education Center</b> (through GlobalGiving) <i>Education awareness on mercury exposure and for the disposal of mercury thermometers in households</i>	Beijing, China	\$14,000		
<b>Foundation for Youth</b> <i>Raised gardens at the Columbus Youth Camp</i>	Columbus, Indiana	\$13,500		
<b>Housing Partnerships, Inc.</b> <i>Energy efficiency improvements to homes of at-risk elderly</i>	Columbus, Indiana	\$12,050		
<b>Aikya Seva Centre</b> <i>Environmental Challenge grant recipient</i>	Maharashtra, India	\$10,000		
<b>Appropriate Rural Technology Institute</b> <i>Environmental Challenge grant recipient</i>	Phaltan, India	\$10,000		
<b>Blind School for Boys</b> <i>Environmental Challenge grant recipient</i>	Pune, India	\$10,000		
<b>Dandelion Middle School</b> (through GlobalGiving) <i>Environmental Challenge grant recipient</i>	Beijing, China	\$10,000		
<b>Global Village of Beijing</b> (through GlobalGiving) <i>Environmental Challenge grant recipient</i>	Beijing, China	\$10,000		
<b>Green Hills Group</b> <i>Environmental Challenge grant recipient</i>	Pune, India	\$10,000		
<b>Hands on Nashville</b> <i>Environmental Challenge grant recipient</i>	Nashville, Tennessee	\$10,000		
<b>International Association of the Lions Club</b> (through GlobalGiving) <i>Environmental Challenge grant recipient</i>	Mombasa, Kenya	\$10,000		

GRANTEE ORGANIZATION	COMMUNITY	GRANT OR DONATION	CUMMINS FOUNDATIONS	CUMMINS INC.
<b>Environment (continued)</b>				
<b>J. Irwin Miller Community Center</b> (through GlobalGiving) Environmental Challenge grant recipient	Guarulhos, Brazil	\$10,000		
<b>Owl Rescue Centre</b> (through GlobalGiving) Environmental Challenge grant recipient	Johannesburg, South Africa	\$10,000		
<b>Mahratta Chamber of Commerce, Industries and Agriculture (MCCIA)</b> Environmental Challenge grant recipient	Pune, India	\$10,000		
<b>Social Justice/Equality of Opportunity</b>				
<b>United Way Agencies</b> Employee matching program	United States	\$2,767,784		
<b>Husk Power Project</b> Rural electrification	Tamkuha, India	\$94,093		
<b>Nucleo Assistencial Bezerra De Menezes - Escola Irmão Francisco</b> (through GlobalGiving) Improve facilities and replace kitchen appliances at the Bezerra de Menezes Day Care	São Paulo, Brazil	\$60,000		
<b>Developmental Services Inc.</b> Improve the work efficiencies, safety and image of the facility	Columbus, Indiana	\$58,798		
<b>Xiangyang Charity Foundation</b> (through GlobalGiving) Employee matching program	Hubei, China	\$58,293		
<b>Food Bank of Central &amp; Eastern North Carolina</b> Establish and expand the Weekend Power Pack for needy children in Nash, Edgecombe and Halifax counties	Raleigh, North Carolina	\$50,000		
<b>The Columbus Park Foundation</b> Refurbish Columbus parks (Mead Village Park, Morningside Park, Ninth Street Park and Pence Street Park)	Columbus, Indiana	\$50,000		
<b>Gleaners Food Bank of Indiana</b> Backsacks program	Southern Indiana	\$50,000		
<b>Love Chapel</b> Support improvements to better serve clients in the community	Columbus, Indiana	\$39,500		
<b>Kids Against Hunger – Greenwood, Inc.</b> Purchase of a stand-up electric forklift that will improve warehouse safety	Greenwood, Indiana	\$36,000		
<b>Methodist Care – Jordan House</b> Purchase of a used van for resident transportation and structural improvements of residential living area	Gauteng, South Africa	\$32,000		
<b>Reinventarse Foundation</b> Technical training and internships for young offenders on probation	Santiago, Chile	\$30,300		
<b>Turning Point Domestic Violence Services</b> Support improvements to the domestic violence shelter	Columbus, Indiana	\$30,200		
<b>Weija Leprosarium</b> (through GlobalGiving) Structural improvements to a residential ward of the Leprosarium	Accra, Ghana	\$30,000		
<b>Human Services Inc.</b> Improve the structural integrity of Horizon House main facility	Columbus, Indiana	\$27,500		

GRANTEE ORGANIZATION	COMMUNITY	GRANT OR DONATION	CUMMINS FOUNDATIONS	CUMMINS INC.
<b>Social Justice/Equality of Opportunity (continued)</b>				
<b>Maharashtra Arogya Mandal (MAM)</b> <i>Provide quality education, vocational training and preparation for higher education for the tribal girls at a small village</i>	Pune, India	\$26,128		
<b>Immigrant Welcome Center</b> <i>Support to build capacity to deliver services</i>	Indianapolis, Indiana	\$25,000		
<b>Masakhane Creche</b> <i>(through GlobalGiving) Build and improve a sanitary structure</i>	Pietermaritzburg, South Africa	\$25,000		
<b>Memphis Cultural Arts Enrichment Center</b> <i>Matching grant to support operation of the Watoto Memphis Downtown Theater of the Performing Arts</i>	Memphis, Tennessee	\$21,000		
<b>Stoughton Area Youth Center</b> <i>Support to continue computer and makerbot programs</i>	Stoughton, Wisconsin	\$21,000		
<b>INCLUDED</b> <i>(through GlobalGiving)</i> <i>Support the social and educational programs to benefit children of migrant workers and their communities</i>	Changping, China	\$19,211		
<b>World of Art Brut Culture</b> <i>(through GlobalGiving)</i> <i>Sponsor a year-long art class for special needs teenagers at the World of Art Brut Culture</i>	Shanghai, China	\$19,149		
<b>Safe Anchor Trust</b> <i>(through GlobalGiving) Refurbishment of the trip boat Lady Victoria in Brighouse</i>	Mirfield, West Yorkshire, U.K.	\$16,400		
<b>Christ's Church</b> <i>(through GlobalGiving) Purchase and install new PCs, software and phone system</i>	Stamford, Lincolnshire, U.K.	\$15,911		
<b>TURGOK (Türkiye Görme Öürlüler Kitaplığı – Library of Turkey for Visually Disabled)</b> <i>(through GlobalGiving) Support to build a recording room to increase the yield on output of visually impaired media</i>	Izmir, Turkey	\$15,835		
<b>Legacy Charities, Inc.</b> <i>Improve physical and psychological health conditions of children</i>	Beijing, China	\$14,116		
<b>China Xiangyang Charity Federation</b> <i>(through GlobalGiving)</i> <i>Support three projects: 1. Improve drinking water in 14 schools; 2. Design English and career choice curricula; 3. Conduct simulation of the university entrance exam interview for students</i>	Hubei, China	\$12,642		
<b>Mid-South Food Bank</b> <i>Social media fundraising platform for the backpack program</i>	Memphis, Tennessee	\$12,000		
<b>Wuxi Nanchang Peizhi School</b> <i>(through GlobalGiving) Support the building of a special needs workshop</i>	Wuxi, China	\$12,000		
<b>New Sunshine Charity Foundation</b> <i>(through GlobalGiving) Employee matching program</i>	Wuxi, China	\$11,317		
<b>People Serving People</b> <i>Green initiative within the organization to conserve energy</i>	Minneapolis, Minnesota	\$11,000		
<b>Colecta Solidaria</b> <i>(through GlobalGiving) Employee matching program</i>	San Luis Potosí, Mexico	\$10,483		
<b>Centro de estudios de promocioan social, CARITA, A.C.</b> <i>(through GlobalGiving)</i> <i>Environmental Challenge grant recipient</i>	San Luis Potosí, Mexico	\$10,000		
<b>Promotores Sociales Voluntarios, A.C.</b> <i>(through GlobalGiving) Environmental Challenge grant recipient</i>	San Luis Potosí, Mexico	\$10,000		

# FOUNDATION LEADERSHIP

*The Cummins Foundation is governed by these officials and committees:*

## BOARD OF DIRECTORS

### **Chairman Tom Linebarger**

*Chairman and CEO, Cummins*

### **Director Mark Levett**

*Vice President – Corporate Responsibility,  
Cummins*

### **Director Will Miller**

*Member of the Cummins Board of Directors*

### **Director Marya Rose**

*Vice President and Chief Administrative  
Officer, Cummins*

### **Director Pat Ward**

*Vice President –  
Chief Financial Officer, Cummins*

### **Director Tony Satterthwaite**

*Vice President  
President – Power Generation  
Business, Cummins*

### **Director Anant Talaulicar**

*Vice President  
President – Components Group  
Chairman – Cummins India*

### **Director Rich Freeland**

*Vice President  
President – Engine Business, Cummins*

### **Director Lisa Yoder**

*Vice President – Global Supply Chain  
Manufacturing, Cummins*

## FOUNDATION OFFICERS

### **Chief Executive Officer Mark Levett**

*Vice President –  
Corporate Responsibility, Cummins*

### **Treasurer Marsha Allamanno**

*Corporate Responsibility Finance Director,  
Cummins*

### **Secretary Mary Chandler**

*Corporate Responsibility Director of Global  
Strategic Programs and Planning, Cummins*

## AUDIT COMMITTEE

### **Chair Marsha Hunt**

*Vice President – Controller, Cummins*

### **Luther Peters**

*Vice President – Internal Audit, Cummins*

### **Karen Battin**

*Vice President –  
Controller, Engine Business, Cummins*

## INVESTMENT COMMITTEE

### **Chair Gloria Griesinger**

*Executive Director –  
Global Treasury and Pensions, Cummins*

### **Greg Ehlinger**

*President, Cummins Northwest*

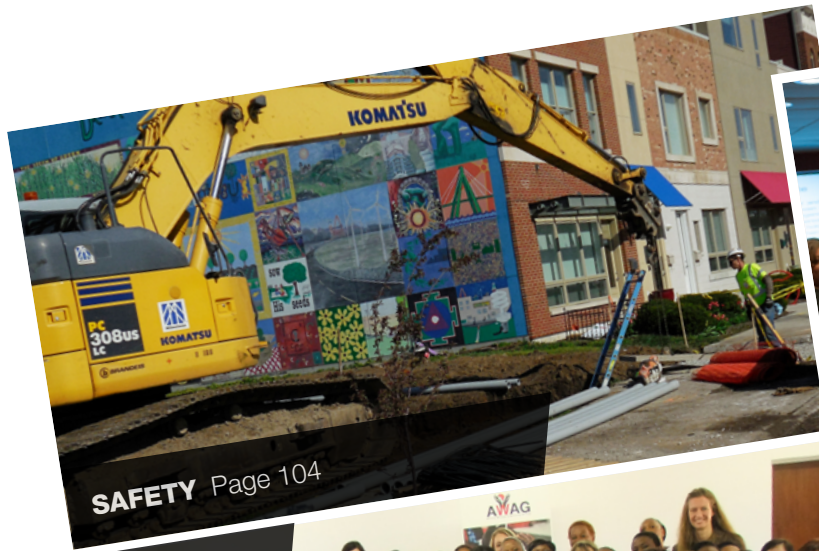
### **Rakesh Gangwani**

*Director –  
EMEA Corporate Development, Cummins*



*Cummins believes sustainability goes beyond the environment and community service to include keeping our employees safe, creating a diverse and inclusive workforce, and developing that workforce to make the Company a great place to work.*

*It's all about creating the **RIGHT ENVIRONMENT.***



**SAFETY** Page 104



**DIVERSITY PROCUREMENT** Page 124



**DIVERSITY** Page 114



**WORKFORCE** Page 126



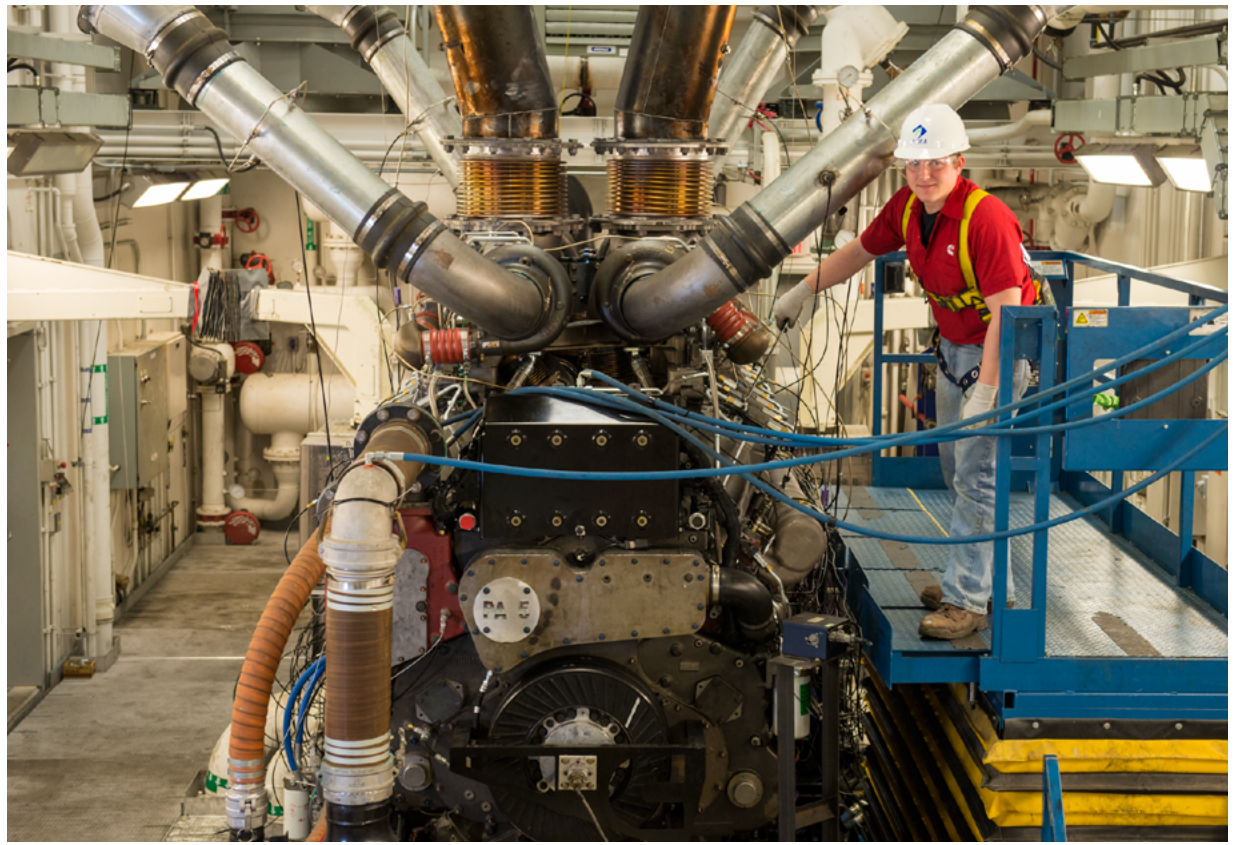
## CUMMINS' PUSH FOR HEALTH AND SAFETY INCLUDES WORK, HOME AND COMMUNITY

*Cummins rolled out a new health and safety vision, several new initiatives and met its goal of driving down the Company's Incidence Rate to a record low in 2013.*

Both the Company's Lost Work Day and Major Injuries and Dangerous Occurrences rates also went down in 2013 compared to the previous year. But Cummins narrowly missed aggressive targets for those key safety metrics.

"Part of the reason we set aggressive goals is to ensure we never get complacent," said Michelle Garner-Janna, Director – Corporate Health and Safety. "I'm pleased we had record lows for several key performance indicators in 2013, but the health and safety of our workforce is imperative; I want to see us do even more."

*Cummins employee Ryan Sterling works safely at height with a harness on top of the Company's QSK95, the largest engine the Company makes. Corporate Health and Safety released a new working at height safety toolkit in 2013.*



To maintain the Company's focus on health and safety, Cummins leaders early in 2014 recommitted themselves to the overall goal of becoming not just an industry leader in this area, but a leader among all companies, regardless of their business or location.

Chairman and Chief Executive Officer Tom Linebarger reiterated his goal, set in 2012, of reaching zero Major Injuries and Dangerous Occurrences by 2016.

"To accomplish this goal, it will require a strong focus from every employee," Garner-Janna said. "We need to develop an interdependent culture in which every employee looks out not just for themselves but for their co-workers as well, and really values health and safety."

Cummins' health and safety team worked to move the Company toward that kind of culture in many ways in 2013, including:

» **Developing a new vision:**

"Injury-Free Living – It's Our Responsibility."  
The vision encourages employees to take responsibility for safety not just on the job, but in all facets of their lives.

» **Establishing new tools:**

The Company released new health and safety toolkits for working at height and machine guarding and identified new ways to analyze ergonomic injuries, the highest contributor to injuries and illnesses at Cummins.

» **Leader commitment:**

Cummins developed and implemented a new educational summit designed to get Company leaders and managers personally engaged in health and safety called "Live It. Lead It (page 108)."

» **Contractor safety:**

The Company implemented a new contractor safety pre-qualification and selection program in 2013 designed to ensure that contractors working for Cummins not only have a good safety record, but also understand the Company's health and safety expectations of them (page 110).

**BY THE NUMBERS**

Cummins reached its 2013 goal of 0.65 for the Company's Incidence Rate, the relative number of recordable injuries and illnesses per 100 employees. This represents a 5.5 percent decrease compared to 2012.

But it missed its target for Severity Lost Work Day Rate of 3.83, which is based on lost time injuries. Cummins' rate of 5.03 in 2013 was nevertheless an 8 percent improvement compared to the year before.

Meanwhile, the Company saw a 16 percent improvement compared to 2012 in its Major Injuries and Dangerous Occurrences Rate of 0.047. Cummins, however, missed its target of 0.040.

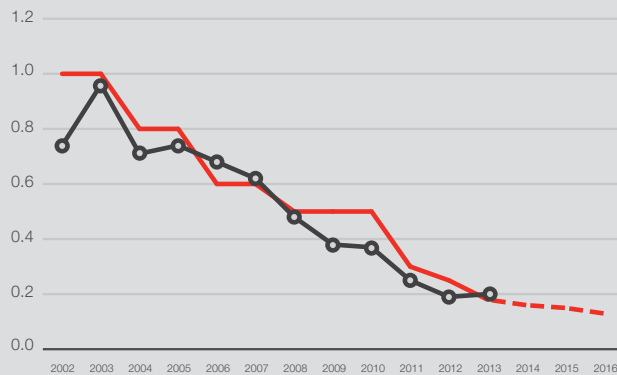
Finally, the Company's Severity Case Rate of 0.20 in 2013 narrowly missed the target of 0.18, which represented a 5 percent increase over 2012. The rate is calculated based on the number of injuries and illnesses resulting in lost work days per 100 employees.

## POSITIVE TREND LINES

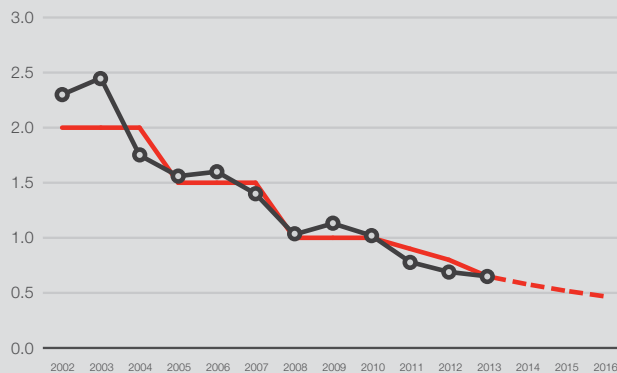
The Company's Severity Case Rate was 0.20 in 2013, narrowly missing the target of 0.18. The rate is calculated based on the number of injuries and illnesses resulting in lost work days per 100 employees.

Cummins reached its 2013 goal of 0.65 for the Company's Incidence Rate, the relative number of recordable injuries and illnesses per 100 employees. This represents a 5.5 percent decrease compared to 2012.

### Severity Case Rate Indicator



### Incidence Rate Indicator



Actual   
Target 

"We set very aggressive goals because we're serious about health and safety," said Pramod Palat, Cummins Occupational Safety Director. "We want everyone to return home safely to their families after work. Setting tough goals helps us get there."

## NEW VISION

To help drive progress to an interdependent safety culture, the Company created a new health and safety vision: "Injury-Free Living — It's Our Responsibility." Health and Safety leaders hope the new vision will help drive employees to take responsibility for safety not only at work, but at home and in their communities, too.

The new vision was developed after a challenge from Cummins Board of Directors to Cummins leadership after a record statistical year in 2011. The board proposed that Cummins become world-class in health and safety. That means becoming a leader not just among other manufacturing companies but among all businesses around-the-world.

Garner-Janna says becoming a world-class health and safety company will mean health and safety is embedded in everything employees do – on and off the job.

"Injury-free living is about preventing injuries in our homes, in our communities, in the environment," Garner-Janna said. "It's all of our responsibility to commit to a goal of zero injuries and to live an injury-free life."

## NEW TOOLS

Cummins' health and safety team produced several new toolkits to help create healthy and safe workplaces. The working at height toolkit addresses employees who work on elevated work surfaces such as ladders, lifts, and booms. Even working just a few feet off the ground presents the opportunity for serious injury if employees don't take necessary safeguards.

Although machine or equipment guards play a vital role in ensuring that machines are safe, they are at times treated casually, which can cause injuries that could have been prevented. To tackle this issue, Corporate Health and Safety designed a machine guarding toolkit to help employees recognize and address potentially dangerous situations where guards are needed or could be improved.



## **“INJURY-FREE LIVING IS ABOUT PREVENTING INJURIES IN OUR HOMES, IN OUR COMMUNITIES, IN THE ENVIRONMENT. IT’S ALL OF OUR RESPONSIBILITY TO COMMIT TO A GOAL OF ZERO INJURIES AND TO LIVE AN INJURY-FREE LIFE.”**

**MICHELLE GARNER-JANNA**

DIRECTOR – CORPORATE HEALTH AND SAFETY

The Company also continued working on ergonomics, re-communicating a campaign to encourage employees to report earlier if they have any symptoms of an ergonomic injury. This early intervention to reduce or eliminate risk is an important aspect to ergonomic improvements. Reporting early symptoms not only can enable more effective treatment, it can also allow jobs to be redesigned to remove ergonomic risk factors.

Ergonomics is the highest contributor to injuries and illnesses within the Company. Cummins is working with an outside company to develop a standardized ergonomics tool to better analyze ergonomic risk factors and develop techniques to prevent ergonomics injuries.

The Company also continued its annual Ergo Cup Competition to encourage sharing and global deployment of excellent solutions to ergonomic problems. In its second year over

80 projects from around the world were submitted and shared.

### **SAFE DRIVING**

Another potentially dangerous activity involving almost all Cummins employees is driving automobiles either to work, for work, or both.

The Company launched the third phase of an ongoing campaign designed to identify drivers at the greatest risk of having accidents, giving them the help they need to improve.

The program involved more than 45,000 employees in 40 countries and was translated into 16 languages. At risk drivers learned about avoiding “road rage,” minimizing distractions and driving defensively.

Corporate Health and Safety plans to continue the focus on safe driving in 2014.

### **CAMPBELL INSTITUTE**

Cummins’ commitment to health and safety was recognized when the Company was invited in the fall of 2012 to be a Charter Member of the Campbell Institute, part of the National Safety Council in the United States.

The Institute brings together leaders of high performing organizations that believe environmental, health and safety standards are at the core of business vitality.

Cummins is able to share best practices through the Institute with other members, including the Dow Chemical Company, Exxon Mobil Corp., General Motors and United Technologies.

In 2013, Cummins was runner up in the Institute’s Robert W. Campbell Award competition in which participants undergo an exhaustive review of their safety policies and practices.

“The process really encourages you to think very critically about what you are doing and how you can improve,” Garner-Janna said. “I know we’ll be much better for having participated.”

# CUMMINS SAYS LEADERS MUST MAKE HEALTH AND SAFETY PERSONAL

*Safety became personal for Ken Anderson at an early age. When Cummins Emission Solutions' Supply Chain Leader was a small child, his father injured his back at work and eventually lost his job because of the injury.*



"We moved to another state and he worked hard for many decades after that, but he was always hampered by back pain from his original injury," said Anderson, who maintains the injury was hard not just on his father, but on his family, too.

The former manager of Cummins' Rocky Mount Engine Plant in North Carolina, Anderson is one of many Company leaders speaking out on their personal experiences with health and safety as part of a new campaign at Cummins called "Live It. Lead It." The goal of the new initiative is to strengthen leaders' personal commitment to health and safety.

*Global Supply Chain Leader Ken Anderson talks about his personal experience with safety as part of the "Live It. Lead It." initiative.*

"I think the program is effective in part because it's very interactive," said Michelle Garner-Janna, Director – Corporate Health and Safety. "It starts a conversation about the impact a workplace injury can have not only on an individual but on the individual's family and on workplace morale, too. If we can make safety personal for a leader, that leader is much more likely to value safety, both inside the workplace and out."

The training includes videos in which employees recount serious injuries as well as how they felt watching family and friends get hurt in workplace incidents. Injury victims describe the pain they felt when their children treated them differently after accidents. They remember the stress they put on loved ones when, sometimes in a matter of seconds, they went from being independent to needing help with their most basic personal needs.

"Thankfully, a lot of our leaders have not had that emotional jolt you get when there's been a workplace accident on your watch," Garner-Janna said. "They haven't had to sit up all night with an injured employee wondering how to support his or her family."

"We want to give our leaders that jolt, that emotional connection, without them experiencing it the hard way," Garner-Janna said.

The program has its roots in a 2011 Cummins Distribution Business Unit initiative that also focused on building a personal connection to safety. It asked participants at the end of each session to make a personal commitment to taking specific actions to help ensure everyone in their workplace returned safely to their families at the end of their shifts.

Live It. Lead It. takes a similar path, asking leaders to look at every work station in their facilities, and then to ask themselves if they

would let their mother, daughter or son work at those stations.

"The family connection is very strong in Live It. Lead It.," Garner-Janna said. "Many people will spend more time with their work colleagues than their real family. In many ways, a workplace injury affects your real family as well as your work family."

The training sessions typically last two days and leaders learn about the toll workplace injuries can take in addition to how to develop a safety culture within a workplace where employees not only look out for their own safety but the safety of their co-workers, too. Leaders explore how to communicate their concern for safety and behaviors that can undermine that message.

"A leader has to speak out about safety because their silence can be interpreted to be implied consent to an unsafe condition," said Helen Watts, the Global Health, Safety and Environment

Leader for Cummins Emission Solutions. She has implemented the Live It. Lead It. training throughout much of her organization.

"If a leader tries to delegate that responsibility, the results can be devastating," added Pramod Palat, Cummins Occupational Safety Director. "If employees don't believe their manager is committed to safety, they may choose to take an unsafe action in order to meet what they think their leader values."

Anderson says the key is to never let safety become simply a number.

"Too often we see safety as statistics or some quantitative measure or report," Anderson said. "While it is important to record information about safety, we must never lose sight that safety is a personal matter – beyond scorecards and measures. Every incident represents a person and their family."

# CONTRACTOR SCREENING ENHANCES HEALTH AND SAFETY AT CUMMINS

*Cummins' new Health and Safety Vision doesn't just pertain to employees. "Injury-Free Living — It's Our Responsibility" applies to contractors working on Company property, too.*

That's why the Health and Safety team at Cummins rolled out a new contractor safety screening program in 2013 designed to ensure that contractors working for the Company not only have a good safety record, but also understand the safety expectations Cummins has for them.

"Many contractors are working close to Cummins employees, so this makes sense from the perspective of keeping our own employees safe," said Pramod Palat, Cummins' Occupational Safety Director.

"But I also think this is consistent with the idea that health and safety doesn't stop within Cummins' property lines," he added. "Injury-free living means thinking about injury prevention in our homes, in our communities and in the environment at large."

Over the past five years, contractors working for Cummins have been involved in a number of major health and safety incidents. They engage in any number of high risk activities, ranging from working at height and in confined spaces to handling chemicals and maintaining electrical systems.

The Company expects contractors to behave just as Cummins employees would, putting health and safety first and looking out for each other to ensure everyone returns home safely at the end of the work day.

In May 2010, the Company created a supplier (contractor) safety management toolkit that required Cummins safety personnel to work with contractors to plan jobs and perform risk assessments before any work begins.

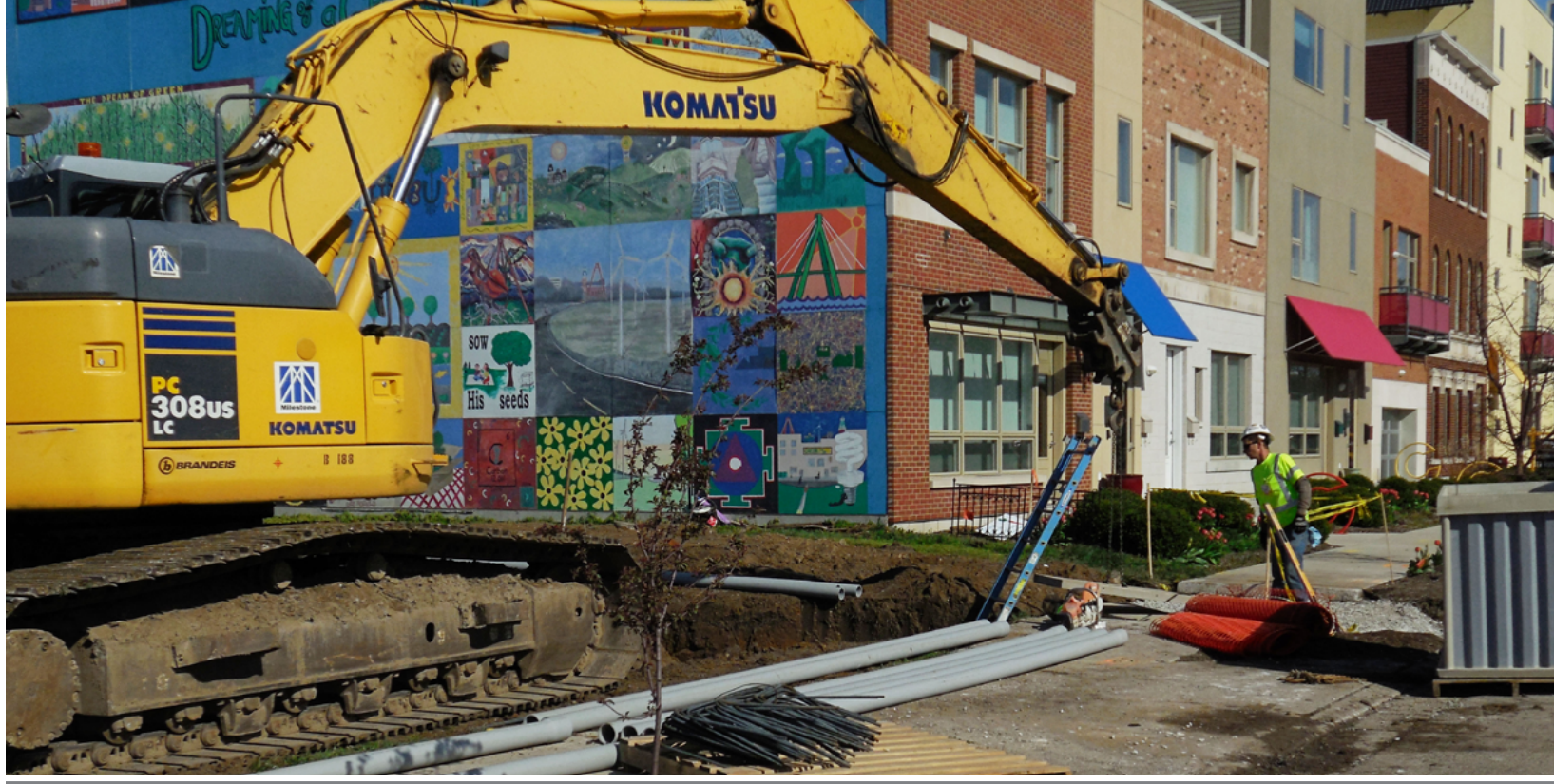
It also called for on-site management, audits and inspections and pre-qualifying contractors using safety criteria prior to bidding.

Health and Safety leaders have long believed that hiring a contractor should involve some kind of safety review. But in rolling out the toolkit, it became clear the Company didn't have a good way to pre-qualify contractors. For example, it lacked a central repository for critical documents.

In early 2012, Corporate Indirect Purchasing and Corporate Safety partnered to determine how a sustainable program could be developed to pre-qualify contractors. They launched a Six Sigma project using the business problem solving tool to put out a request for proposals.

Eventually, the Company selected a business called PICS to pre-qualify all contractors who





perform work on Cummins sites. PICS collects, and when possible verifies, data including safety performance evaluations, licenses and certification information.

About half of Cummins' current contractors in North America were already registered with PICS at the outset of the program. Contractors who weren't registered were given time to register and obtain "green flag status." Without that status, a contractor can't work for Cummins.

Sites in Southern Indiana were the first to take part in PICS. The initiative began reaching out to North American sites outside Indiana in January of 2013 and is expected to be available throughout most of Cummins by the end of 2014. More than 500 contractors have registered with PICS in North America.

The initiative is drawing a lot of interest in the safety world outside of Cummins, and was lauded by the National Safety Council among others.

*Crews from Milestone Contractors, L.P., work on the site of the Cummins LiveWell Center, a health and well-being center under construction in Columbus, Indiana. Before it could begin work, the firm had to clear a new safety review started by Corporate Health and Safety for all contractors.*

"We've been very pleased with how well this program has been received, including by our contractors," Palat said. "Injury-Free Living' means thinking about everyone's safety. We want to protect our contractors just as we protect our employees."

# DEFIBRILLATORS SAVE LIVES AT CUMMINS

*Gerry Gorbey felt bad almost from the moment he woke up on an April morning in 2013. By the time he got to work at Cummins Northwest in Renton, Washington, around 6 a.m., he knew something was seriously wrong.*

Dizzy, with an upset stomach, Gorbey broke into a cold sweat.

"This being the age of the Internet, I knew it was trouble," said Gorbey, who was familiar with the symptoms of a heart attack. "I knew, wow, this is big."

Gorbey, however, was lucky in two ways. First, many of his co-workers had been trained in first aid. In addition, Cummins Northwest had an automated external defibrillator or AED, which his co-workers quickly used when they found he didn't have a pulse.

Despite going into full cardiac arrest, Gorbey not only survived but was back on the job as a Service Supervisor at Cummins Northwest within a few weeks – with no permanent heart damage.

"My cardiologist told me if it was not for the defibrillator, I'd be dead," Gorbey says without hesitation.

Gorbey was not the only Cummins employee who received life-saving help from an AED in 2013. Brad Lindquist, an employee of the Jamestown Engine Plant in New York, fell to the floor without a pulse around 6:30 on an October morning in 2013.

Co-worker Adam Valvo quickly began performing cardio pulmonary resuscitation (CPR) until

Stephen Barresi, a physician's assistant at the plant, arrived and used the AED. Lindquist regained a normal pulse before being taken to a nearby hospital. He returned to work after about two months.

*Cummins employees who responded to Gerry Gorbey's heart attack are honored by the City of Renton for their work. Gorbey is third from the left and Rick Miller is fifth from the left.*





“To have one person come back from full cardiac arrest is rare,” said Kelli Smith, Cummins’ Occupational Health Director. “To have two in the same year – that’s amazing.”

Cummins’ efforts to have AEDs at every site with 10 or more employees dates back several years. The initiative started with the Company’s Power Generation Business Unit because of the heart-related risks inherent in working with electricity. The Company today is very close to its goal with around 130 sites now equipped with AEDs.

Gorbey and Lindquist were both fortunate that one of the first people to arrive after their heart attacks was an employee with experience as an emergency responder.

In Gorbey’s case, that person was Rick Miller, a fellow service supervisor at Cummins Northwest who was formerly a paramedic.

Miller had been one of the first to respond a year or so earlier when an employee at the building in suburban Seattle suffered a heart attack before Cummins Northwest had an AED. That person also survived. Miller said his training immediately kicked in when Gorbey collapsed, but he said anyone can use an AED.

“The machine tells you what to do, step by step,” Miller said. “It is very easy to use.”

In Lindquist’s case, Valvo moved quickly when he saw a pair of legs sticking out from below the engine lift table where Lindquist had fortunately fallen on a rubber mat. As a volunteer firefighter, Valvo had accompanied paramedics on heart attack calls before, but this was the first time he had arrived on the scene first.

Like Miller, he says his training kicked in as he quickly applied CPR until Barresi arrived with the AED.

The American Heart Association says the survival rate for a heart attack victim who receives immediate care like CPR is double or triple that for someone who has to wait five or 10 minutes until help arrives.

“There’s no question that everything lined up for Brad that day,” said Barresi, who has extensive experience working in emergency rooms. “Adam was nearby and medical personnel were relatively close. Our employees did a great job of crowd control and making sure the ambulance could get as close as possible. Everybody did a great job.”

Lindquist knows he was fortunate.



*Adam Valvo (left), Brad Lindquist (middle) and Stephen Barresi (right) at the Jamestown Engine Plant.*

“Almost everybody at the hospital said I was lucky to be alive,” he said. “Had I been somewhere else, I probably wouldn’t have made it. Everyone knew exactly what they were doing.”

Gorbey wants to spread the word that AEDs and first aid training save lives.

“Ninety percent of the people who go into full cardiac arrest die,” he said. “I am extremely grateful for what my co-workers did and for Cummins Northwest providing the AED.”

## DIVERSITY

Embrace the diverse perspectives  
of all people and honor with both  
dignity and respect.

### RIGHT ENVIRONMENT // DIVERSITY

## LEVERAGING THE POWER OF DIVERSITY

*Cummins believes diversity is critical to creating the right work environment for success. Bringing together people with diverse backgrounds to solve a problem will almost always yield a better result.*

That's why diversity is one of the Company's six core values. Cummins pledges to "embrace the diverse perspectives of all people" and honor them with "dignity and respect."

The Company's efforts on diversity over the past year have focused on three areas key to leveraging the full benefit of a diverse workforce:

- » Creating an inclusive workplace.
- » Working with the Company's business units to incorporate diversity into their business plans.
- » Developing and empowering under-represented groups of employees to ensure their voices are heard.

"The diverse ideas and perspectives of our employees help drive innovation at Cummins," said Kelley Bertoux Creveling, the Company's Executive Director of Global Diversity and

Right Environment. "Diversity not only helps us create innovative products, it enables us to better serve our customers and establish a solid foundation for future growth and success."

### INCLUSIVENESS

In an inclusive work environment, employees feel free to share their full opinions and challenge long held beliefs appropriately. It's in competing ideas that the real power of diversity can be seen.

Cummins took a number of steps to promote inclusiveness over the past year, starting with the posting of "Personal Statements on Diversity" from members of senior leadership on the Company's internal website. The leaders shared their own experiences and personal journeys with diversity.





“At various times in my life, and certainly during my career at Cummins, I have seen how outcomes can be so much better when we welcome diverse perspectives and backgrounds and help others to have a voice,” wrote Marya Rose, Cummins Vice President and Chief Administrative Officer.

“Cummins has contributed to making a difference in people’s lives by creating a vision and a mission to have those who are recruited and hired treated with dignity and respect and wanting everyone to be free to grow and develop on the merits of their performance,” wrote Cummins Vice President Pamela Carter, President of the Company’s Distribution Business Unit.

“Cummins has given me the opportunity to grow, develop and contribute in ways that seemed impossible just a few years ago,” added Carter who also wrote about her experience marching with Dr. Martin Luther King, Jr.

Company leaders also spoke out against House Joint Resolution 3, an amendment to ban gay marriage in Indiana’s state constitution. They said the amendment ran counter to the Company’s values and would send an unwelcoming message to prospective employees considering a move to Cummins’ headquarters state (page 119).

*Members of the Women’s Affinity Group in South Africa join the students they tutor at a school in a struggling township near the Company’s headquarters.*

The Company also developed and implemented new policies and procedures to promote inclusiveness. For example, Cummins instituted a transition process to help employees going through a change in gender identity and the Company adopted a global telecommuting policy to provide guidelines for employees wanting the flexibility of a non-traditional work arrangement.

Cummins also continues to establish space in its facilities for nursing mothers and for meditation and religious observances.

## TAKING ACTION

The Company's four major business units, meanwhile, are working to incorporate diversity into their business plans. Cummins' Global Diversity staff and the Chairman's Diversity Council are establishing guiding principles for both the business units and the Company's Area Business Organizations (ABOs) located around the world.

The business units and ABOs then develop their own action plans aligned to the principles established by the staff and the council. The council, which is made up of the Company's senior leaders, meets quarterly to discuss diversity related issues at Cummins.

Diversity at the Company has long been about more than representation, but one of Cummins' key initiatives has been to develop

a workforce and leaders that closely resemble the demographics in the countries and markets where the Company does business.

Cummins has several initiatives designed to increase the number of leaders from under-represented groups at Cummins. For example, the Company has mentoring programs that pair Cummins officers with female employees identified as having a high potential for leadership. In addition, women can obtain career advice, network and demonstrate their leadership skills through the Company's more than half-dozen Women's Affinity Groups, located in Australia, Brazil, China, India, South Africa, the United Kingdom and the United States.

A key metric for the Company is Leadership by Country of Birth. Cummins believes strongly in developing leadership from the markets where

## CUMMINS AND DIVERSITY

Here's a look at some diversity facts at Cummins:

- » The Company has more than 100 employee resource groups connected to diversity. Affinity Groups are organized around specific demographic traits under-represented at the Company such as women and African Americans. Local Diversity Councils are site-based groups that promote diversity in general and identify diversity-related issues to site leadership.
- » Legendary CEO J. Irwin Miller helped with the organization of Dr. Martin Luther King Jr.'s 1963 March on Washington while Miller led the National Council of Churches.
- » The Company's Diversity Procurement Program is approaching \$1 billion in spending with diverse suppliers (page 124).

## **“THE DIVERSE IDEAS AND PERSPECTIVES OF OUR EMPLOYEES HELP DRIVE INNOVATION AT CUMMINS. DIVERSITY NOT ONLY HELPS US CREATE INNOVATIVE PRODUCTS, IT ENABLES US TO BETTER SERVE OUR CUSTOMERS AND ESTABLISH A SOLID FOUNDATION FOR FUTURE GROWTH AND SUCCESS.”**

### **KELLEY BERTOUX CREVELING**

EXECUTIVE DIRECTOR OF GLOBAL DIVERSITY AND RIGHT ENVIRONMENT

it does business rather than rely on expatriates. The Company’s Global Leadership Development Program was established in 2012 to prepare high potential employees from outside the United States for future leadership roles.

*Vice President Tracy Embree (left), President – Cummins Turbo Technologies; Vice President and Chief Information Officer Sherry Aaholm (center) and Joann Jones, Executive Director, Leadership Development (right), discuss the skills it takes to be an effective leader at a forum sponsored by the Women’s Affinity Group in Southern Indiana.*

So far, the 18-month program has been held in China, India, South Africa and South America. The program is next slated for Brazil.

### **LOOKING AHEAD**

Almost one out of five Cummins employees has a degree in engineering or some other scientific discipline. The Company is also working to develop diversity in the next generation of its employees with these critical backgrounds.

Cummins employees are active in groups such as the Society of Women Engineers, the Society of Hispanic Professional Engineers and the National Society of Black Engineers.

The Company is a major supporter of the Cummins College of Engineering for Women in India and Project Lead the Way in the United States, whose goal is to attract younger students to careers in Science, Technology, Engineering and Math (STEM).

Cummins also sponsors a traveling Lego model of its QSK95 engine that serves as a vehicle for Cummins engineers and younger male and female students to talk about STEM as a career.

“Diversity is more than just the right thing to do,” said Creveling. “Diversity aligns with our business goals and is critical to the sustainability of our Company.”

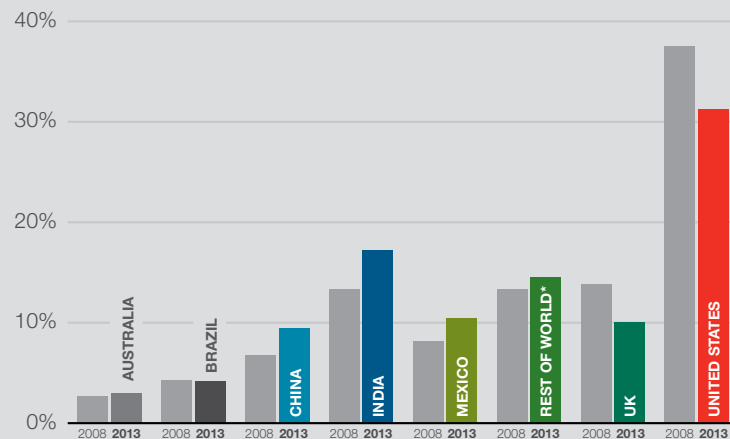


## DEVELOPING A TRULY GLOBAL WORKFORCE

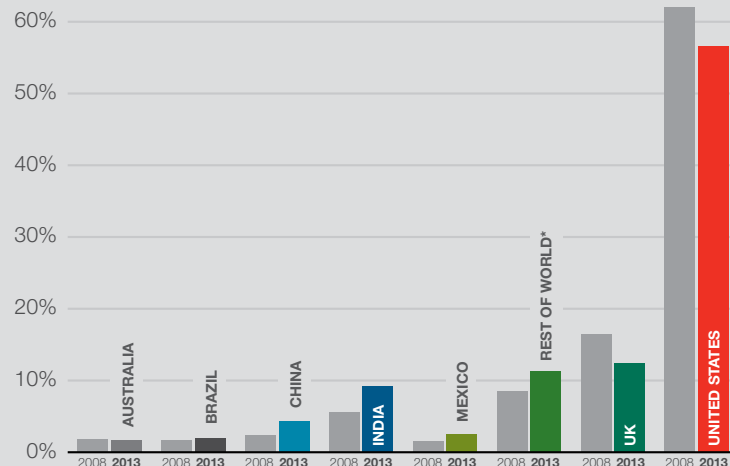
Diversity at Cummins has long been about more than representation. But as a truly global company, Cummins wants to develop a workforce that closely resembles the demographics in the countries and markets where we do business.

Company leaders pay special attention to some key metrics of under-represented groups at Cummins including women and country of birth. Here's a look at what's been happening in these areas from 2008 to 2013.

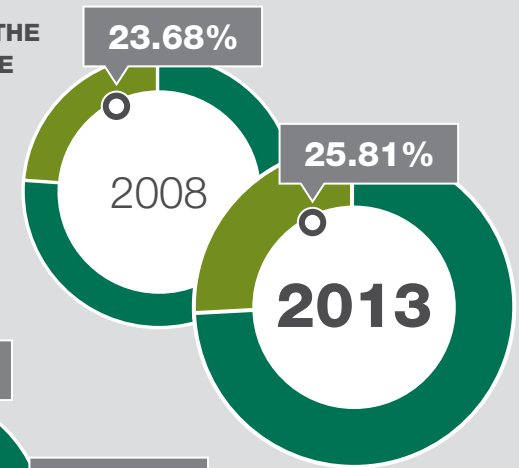
### COUNTRY OF BIRTH FOR THE WORKFORCE



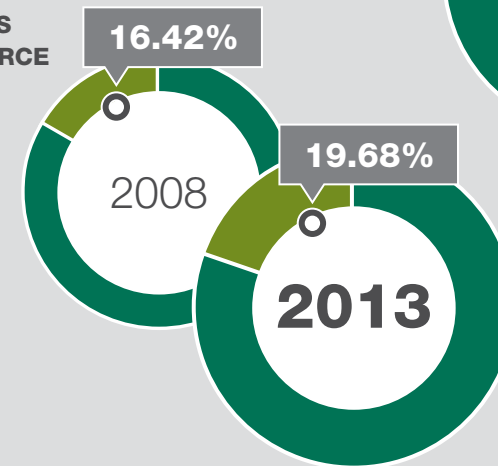
### COUNTRY OF BIRTH FOR LEADERS



### WOMEN IN THE WORKFORCE

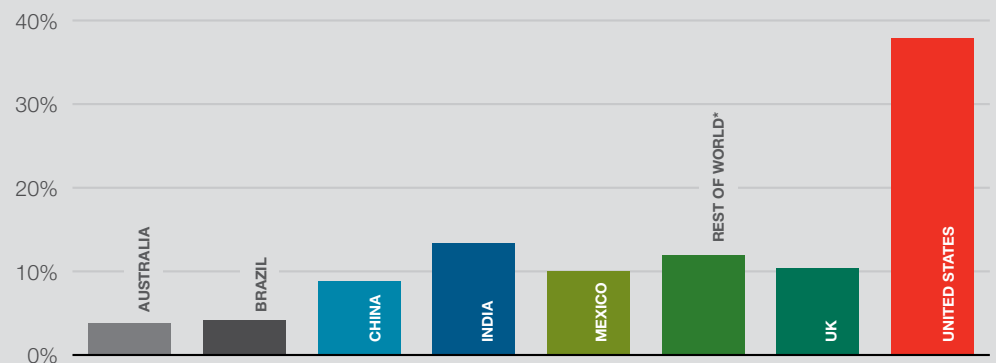


### WOMEN LEADERS IN THE WORKFORCE



### WORKFORCE BY LOCATION

More than half the Cummins workforce works outside the United States. Here's a look at where Cummins employees were in 2013.



\*Rest of world category includes countries with less than 1,000 Cummins employees.



# CUMMINS SPEAKS OUT FOR DIVERSITY

*Cummins' long term success in a highly competitive global economy depends on attracting the best and brightest employees.*



*Cummins Vice President and Chief Administrative Officer Marya Rose testifies against a gay marriage ban before the Indiana House.*

That's one key reason the Company spoke out against House Joint Resolution 3, a proposed amendment to the state of Indiana's constitution that would ban gay marriage.

"This resolution sends a negative message that Indiana is not a place that welcomes people of all backgrounds and it jeopardizes our ability to be competitive in global markets," said Marya Rose, Cummins Vice President and Chief Administrative Officer, testifying before the Indiana House Judiciary Committee in January, 2014.

"We know from experience that the creative and innovative employees we need to meet the challenges of a 21<sup>st</sup> century economy are reluctant to move to places that do not embrace diversity," Rose added.

Cummins did not enter this highly-charged debate lightly. Company leaders recognize there are people with strong feelings on both sides.

But given the potential for a long and extremely divisive debate that could potentially affect Cummins' ability to attract the most talented employees, leaders felt the Company must act.

It was not the first time the Company has taken a position on this issue. Cummins lobbied in 2012 against a proposed gay marriage ban that was ultimately defeated in Minnesota.

The Company also joined more than 250 other companies as a signatory to a brief filed with the U.S. Supreme Court in 2013 opposing California's Proposition 8 prohibiting same sex couples from marrying. The court declined to enter the California case, effectively clearing the way for same sex marriages to resume.

In Indiana, lawmakers passed the amendment, but only after removing language that would have banned civil unions and similar arrangements. That move delayed a public vote on the measure for at least two years.

# THE SOCIAL SIDE OF ENGINEERING

*Cummins Vice President John Wall, the Company's Chief Technical Officer, is fond of saying that engineering is a social exercise.*

So it was no surprise to the Company's top engineering leaders from around the world to see Dr. Wall on stage as part of an engineering conference in the fall of 2013 dressed in a traditional Chinese jacket called a "Tang Zhuang." He was beating a small drum as part of the prelude to a Chinese word game called "Taboo."

The Company's engineering leaders almost always schedule time during the twice yearly

leadership conferences to learn more about each others' cultures. While these sessions include plenty of fun, they are considered just as important as the conference's meetings on growth, design and strategy.

That's because to harness the full power of a diverse, global workforce, people have to be able to work together, communicating freely and openly. In an environment where employees

frequently work in teams and members can be on different continents, open communication can be more difficult than it sounds.

Knowing the people you work with and a little bit about their families, their interests and their cultures can make it much easier.

"It not only helps, it's essential," said Jim Katzenmeyer, the engineering leader on the development of Cummins 5.0L V8 Turbo Diesel engine that will be featured in Nissan's next generation of Titan pickup truck.

This particular engineering leadership conference focused on China. After three days of meetings, the 100 or so participants shared a Chinese meal and learned about Chinese culture through music, dance and games.

*Cummins Vice President John Wall, the Company's Chief Technical Officer, says engineers will work better together if they know a little about each other's culture and family. He is joined on stage by Qi Wang, a Senior Supply Chain Analyst at Cummins.*





Haoxiang Yang, a Product Reliability Engineer, helped organize the dinner. He said he hoped his fellow engineers gained an appreciation for Chinese history and culture, but also some understanding of the current Chinese market for Cummins engines.

The evening included a skit where a young Chinese couple debated buying a Cummins engine to help the husband's business, delaying their dream of owning their own home. While the skit included plenty of laughs, it also offered a number of insights into the challenges facing young families in China today.

Conference participants said the cultural sessions are important for a variety of reasons.

Jie Duan, a Technical Specialist in Advance Systems Integration in Columbus, said knowing your colleagues better can make it easier for someone who is shy or new to the Company to ask questions and share opinions.

Hélène Cornils, Director – Technical Operations Excellence for Components Engineering, said it's sometimes easy to get overwhelmed by the numbers inherent in engineering.

"Unless you get to know someone it can be very difficult to really communicate," she said. "You can share numbers, but you have to be able to communicate to share the interpretation of those numbers."

*Attendees at the engineering conference wear authentic Chinese jackets.*

Andre Goodlett, Cummins Director of Diversity Relations, says one of the keys to leveraging the full benefit of diversity is creating the kind of inclusive environment where everyone feels comfortable to share their true feelings in a constructive way.

"Embracing diversity in the workplace means treating each other with dignity and respect when expressing or receiving different perspectives," he said. "It's in competing ideas that we truly see the power of diversity."



# TODAY, HE IS BUILDING A BETTER LIFE AT CUMMINS

*For Rogerio Santos, soccer was everything. A forward in football-mad Brazil, he dreamed of playing for one of the country's top teams. Then, everything changed in an instant.*

On May 26, 2006, Santos was shot during an attempted robbery. He suffered permanent damage to his back and legs. Instead of spending his days dribbling a soccer ball, he was suddenly confined to a wheelchair.

Today, however, Santos is building a new life at Cummins, inspiring his co-workers as he goes about his job at the Company's Guarulhos campus outside São Paulo. He's learning English, developing his business skills and Santos is demonstrating what people with disabilities can bring to a workplace.

"I do not see myself as disabled," Santos said. "I am a much happier, stronger person than when I used to walk because I have people beside me who love me and support me."

Santos has been at Cummins for the past five years, and currently works as an assistant in the Cummins Turbo Technologies planning area.

Prior to that, he was working as an assistant in aftermarket sales, where he was supervised by Marcelo Franco Giannini, who was fairly new to the Company then.

Giannini wasn't quite sure how to manage someone with disabilities, but he pretty quickly realized Santos was a hard worker, with a strong desire to better himself and build his career.

Santos said it took a long time for him to reach that point. He spent more than a month in the hospital after he was shot and more than two years living with his mother and sister as he recovered from his injuries. Santos said he fell into a downward spiral then. His marriage ended. His relationship with his son suffered.

One day, he saw his mother crying out of concern for him. That's when he vowed to change his life.



*Rogerio Santos and Marcello Franco Giannini helped establish a Special Needs and Abilities Affinity Group at Cummins in Brazil.*





*Rogério Santos went skydiving with friends from the office.*

"I decided then that it was time to get out of the pit," Santos said.

He dedicated himself to his physical therapy sessions, and eventually fell in love with and married his therapist. When he became strong enough, he began looking for a job. Santos knew he would need to find a workplace that supported people with disabilities. He heard Cummins was such an employer.

Giannini and others worked to create an environment where a person in a wheelchair could thrive. That meant having the copy machine in the right place, keeping the aisles wide and making some accommodations in the bathroom.

"It was pretty small stuff," Giannini said. "It just required a little bit of thought."

A co-worker who had spent time in Cummins' headquarters city of Columbus, Indiana, had

seen the Special Needs and Abilities Affinity Group there helping people with disabilities in the workplace. She suggested Giannini use the knowledge he had gained working with Santos to establish a similar employee resource group in Brazil.

Santos and Giannini both serve on the affinity group today, working to help Cummins create a welcoming work environment in Brazil for people with disabilities.

"Rogerio tells them 'If I can make it, if I can build a better life, then so can you,'" Giannini said.

Santos is now a part of the office fabric. He has even gone sky-diving with friends from work.

"The one quality he has really brought to the Company is commitment," Giannini said. "His commitment is an inspiration to other employees and it makes our offices a better place to work."

**"I DO NOT SEE MYSELF AS DISABLED. I AM A MUCH HAPPIER, STRONGER PERSON THAN WHEN I USED TO WALK BECAUSE I HAVE PEOPLE BESIDE ME WHO LOVE ME AND SUPPORT ME."**

**ROGERIO SANTOS**  
ADMINISTRATIVE ASSISTANT,  
CUMMINS TURBO TECHNOLOGIES

## DIVERSITY PROCUREMENT AT CUMMINS IS A BOTTOM LINE STRATEGY

*While Cummins believes diversity procurement is consistent with the Company's Corporate Responsibility value to "serve and improve the communities in which we live," officials consider it a key business strategy with bottom line benefits.*



*Cummins Chairman and CEO Tom Linebarger meets with diverse suppliers from around the Midwestern United States. Cummins is an active participant in events sponsored by the Mid-States Minority Supplier Development Council.*

Developing diverse suppliers gives the Company a competitive advantage by increasing competition for its business needs. At the same time, it creates economic opportunities within all the communities where Cummins employees live and work.

"We are definitely looking for suppliers who can add value to what we do at Cummins," said Michelle Taylor, the Company's Diversity Procurement Leader. "Diversity procurement helps build stronger communities, but the business case for supplier diversity is very clear."

The Company continued to near the \$1 billion mark in spending with diverse suppliers in 2013, reaching \$990.4 million, an increase of 11 percent over 2012.

The Company achieved the increase despite challenging economic conditions.

Since 2009, spending on diverse suppliers at Cummins has increased almost 130 percent from the \$432.70 million recorded five years ago.

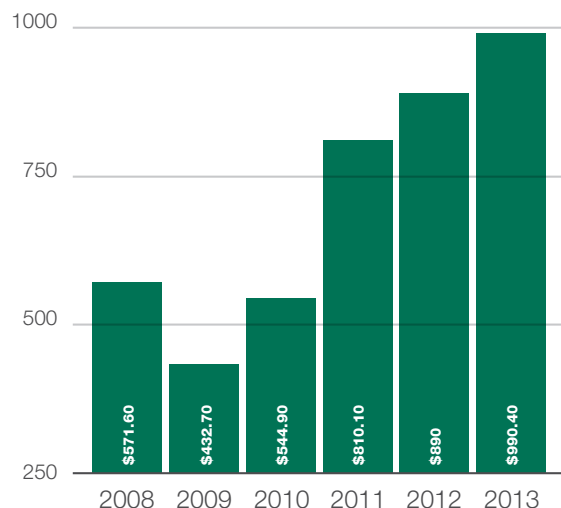
The Diversity Procurement staff focused on improving communications with suppliers in 2013, developing a new Cummins Diversity Procurement website. The website will include webinars, videos of Cummins leaders talking about diversity procurement and the latest opportunities for diverse suppliers to bid on the Company's supply chain needs.

"It's critical for us to get the word out about the opportunities we have for diverse suppliers here at Cummins," Taylor said. "We want to develop all the potential channels for communicating our message, whether it's online, social media or taking our message on the road and meeting with people in small groups."

### Spending on diverse suppliers

in millions of dollars

*The total amount of money Cummins has been spending with diverse suppliers since 2008.*



On that front, Taylor plans to significantly expand a program initiated in 2012 called “Conversations with Cummins.” Working in partnership with the National Minority Supplier Development Council, these conversations are designed to bring together Cummins officials with diverse suppliers from around the country in an effort to brief those suppliers on enterprise-wide growth opportunities at the Company.

These growth opportunities often require capacity planning on the part of suppliers and Taylor wants to be sure diverse suppliers are aware of what will be coming up at Cummins.

The diversity procurement staff also arranged for Chairman and CEO Tom Linebarger to host a breakfast with top diverse suppliers from around the Midwest in partnership with the Mid-States Minority Supplier Development Council, which includes Central Illinois, Indiana and Eastern Missouri.

“Tom is still new to a lot of people so it’s very important that diverse suppliers hear from him and hear his expectations for suppliers at Cummins,” Taylor said.

The diversity procurement team is also reaching out by sponsoring a Diverse Suppliers Symposium May 16, 2014 at a Columbus, Indiana-area hotel.

“My hope is that many of the suppliers attending the symposium won’t have done any business with Cummins,” Taylor said. “I want this to be a showcase for companies that are ready to play a key role in our supply chain.”

The Diversity Procurement staff is also looking to identify promising minority suppliers through its membership on the National Minority Supplier Development Council’s Automotive Industry Group.

Members of the group, which includes automakers such as Chrysler, a pioneer in supplier diversity, share best practices as well as the names of successful minority-owned businesses. Taylor is currently serving as Vice President of the group.

While diversity procurement has been primarily a U.S. function, the team is also trying to spread the word about its benefits outside the United States.

The Diversity Procurement staff is working with each Cummins Area Business Organization (ABO) around the world to help them connect with organizations that promote minority suppliers and women-owned businesses.

Each ABO is developing its own growth targets as well as its own definition of what constitutes a diverse supplier in its particular region of the world.

“We’ve made some significant progress in places like China and the U.K.,” Taylor said. “I’m hopeful this will really help take our diversity procurement efforts international.”



## HELPING EMPLOYEES SUCCEED IS KEY GOAL AT CUMMINS

*The right work environment for success starts when a new Cummins employee begins OnBoarding and continues through the highest levels of the Company.*



### COMPENSATION / BENEFITS

Providing a competitive compensation and benefits package is important at Cummins. The health and well-being of the Company's employees is a priority at all global locations and Cummins has developed programs tailored to the needs of employees and their families.

Compensation, health and retirement benefits vary by location and are designed to be competitive within the local markets and countries where the Company does business. For Cummins, this means the Company strives to strike the right balance between local market practice and Cummins' values and principles. The Company believes this approach improves our ability to recruit and retain high-quality people.

*Office employees get a chance to learn more about what the Cummins Engine Beijing Co., Ltd. does at quarterly "Workshop Days." The event is designed to improve communication between office workers and shop floor personnel.*



Cummins takes an innovative approach in its compensation and benefits programs. In healthcare, for example, the Company has hired a chief medical officer to help Cummins build a culture of health and well-being.

In addition, the Company provides employees and their families with a number of resources to support their health and well-being, including programs to track and prioritize health and fitness, medical plans that encourage consumer-driven decision making, and tools for employees to understand their retirement investment options and track their progress.

### **STARTING OFF**

New Cummins employees are introduced to the Company's Performance Management System during OnBoarding classes. The web-based program was created to ensure employees know their managers' expectations, including what they need to accomplish and how to improve.

The system provides the consistent feedback employees need to develop and succeed, from a wide range of stakeholders including peers and direct reports – not just an employee's manager.

With more than half of Cummins' employees living outside the United States, the Company takes a global view of workforce development. The system is available in multiple languages and includes about 26,000 employees.

### **LEADERSHIP DEVELOPMENT**

Leaders and managers learn early on that they must master five skill areas that Cummins believes are essential to great leadership:

- » Coach and develop
- » Foster open communications
- » Manage diversity
- » Talent management
- » Think strategically / Set the aim

To accomplish this, the Company targets leaders at various stages in their careers, recognizing that nothing is as career-limiting as a bad boss who doesn't help his or her employees reach their full potential.

One of Cummins' most successful programs has been the "Building Success in Others" initiative. Launched in 2011, this multi-component program includes web-based courses, live webinars and an intensive, three and a half day course focused primarily on helping leaders of professional employees better understand the expectations the Company has for them as leaders and develop the skills necessary to fulfill those expectations.

The program has now been implemented in China, India, Singapore, South Africa, South Korea, the United Kingdom and the United States.

Close to 5,000 managers are part of the Building Success in Others program. In addition, the program provides training support to the managers of this group so that they can provide ongoing support and coaching needed to successfully implement the skills participants learn during the program.

The Global Leadership Development Program is another leadership development program. It moved to South America and Africa in the past year. The 18-month program prepares 15-to-20 high potential employees from one of the Company's Area Business Organizations for global leadership roles. This program plays a major role in developing future leaders from outside the United States.

Finally, efforts continued to develop high performing teams at the executive level of the Company. This development initiative focuses on dealing with team members in an authentic way to build trust, better resolve conflicts and improve decision making.

Continuous improvement is expected of any Cummins employee, whether that employee has just started with the Company or has been with Cummins for more than 20 years.

## CUMMINS UPDATES SUPPLIER CODE OF CONDUCT

*Cummins believes good governance is foundational for a truly sustainable company. That's why the Company constantly updates the policies and procedures guiding not only employee conduct, but the conduct of the companies that supply Cummins.*



In keeping with that approach, the Company updated its Supplier Code of Conduct in 2013 to make it more global in scope while addressing new regulatory issues such as conflict minerals.

The Supplier Code of Conduct, which Cummins first established in 2005, is today built around seven principles:

- 01** Suppliers must follow the law.
- 02** Suppliers must treat all people humanely and with dignity and respect.
- 03** Suppliers must do business fairly and honestly and avoid conflicts of interest.

*U.S. Secretary of State John Kerry visits the new Beijing Foton-Cummins heavy duty engine production facility, hailing it as a vivid example of mutually beneficial collaboration between China and industries in the United States. He stopped at the plant during a tour through Asia. To learn more about the Company's government relations initiatives, go to page 136.*

**04** *Suppliers must protect the environment.*

**05** *Suppliers must provide a safe and healthy working environment.*

**06** *Suppliers must protect Cummins technology, information and intellectual property.*

**07** *Suppliers must assist Cummins in enforcing this Code.*

Each principle includes compliance guidelines to make the Code more user-friendly. For example, under principle No. 2 regarding treating people with dignity and respect, the Code states: "Suppliers should have formal policies prohibiting harassment, discrimination and ensuring fair treatment of all employees." It also states suppliers must respect employees' right to bargain collectively and bans forced or child labor.

Under principle No. 4 dealing with protecting the environment, the Code states: "Suppliers should establish means by which they understand the identity and quantity of the chemicals and compounds used in their operations and products." It also states that suppliers "should develop robust means by which they monitor, measure and validate their use of materials and resources, discharges and emissions to understand and reduce their impact on the environment."

The Code has been translated into 14 languages and is prominently posted on the Company's Supplier Web Portal (a link is available on Cummins' homepage at [www.cummins.com](http://www.cummins.com)). The Company sent the updated code to its top suppliers representing 80 percent of Cummins' total spending and has launched a new certification process in which those suppliers will commit to comply with the Code. The process was still underway as of the publishing of this report.

Finally, the Supplier Code of Conduct now addresses the issue of conflict minerals. Conflict minerals are mined in conditions of armed conflict and human rights abuses in the Democratic Republic of Congo and adjacent countries.

They include tin, tungsten, tantalum and gold. The Code states that Cummins will work with suppliers "and strive to ensure that minerals in our products come from conflict-free sources and that all suppliers are required to supply information about their use of these minerals to Cummins."

Beginning in 2014, U.S. laws require companies that are publicly traded on U.S. exchanges to disclose whether they use the specified minerals in their products and the source of those minerals. Cummins has developed a process



*Cummins' updated Supplier Code of Conduct has been translated into 14 languages, including Chinese (above), and addresses everything from human rights to environmental protection.*

to analyze the use and source of the conflict minerals in our products and will comply with the disclosure requirements. Cummins will continue to refine and enhance its conflict minerals program in 2014 and beyond.

## **CUMMINS CODE OF CONDUCT**

The Supplier Code of Conduct aligns closely with the Company's Code of Business Conduct which was updated in 2012 and released in 2013. The Company's Code of Conduct protects and promotes the ethical behavior that makes Cummins a special place to work.

The Code of Conduct is built around 10 principles:

- 01** *We will follow the law everywhere.*
- 02** *We will embrace diverse perspectives and backgrounds, and treat all people with dignity and respect.*
- 03** *We will compete fairly and honestly.*
- 04** *We will avoid conflicts of interest.*
- 05** *We will demand that everything we do leads to a cleaner, healthier and safer environment.*
- 06** *We will protect our technology, our information and our intellectual property.*
- 07** *We will demand that our financial records are accurate and that our reporting processes are clear and understandable.*
- 08** *We will strive to improve our communities.*
- 09** *We will communicate honestly and with integrity.*
- 10** *We will create a culture where employees take responsibility for ethical behavior.*

The Company's 28-page Code of Conduct is translated into 16 languages and includes Frequently Asked Questions with each principle to provide context and help guide Cummins employees.

Employees have multiple ways to report suspected violations of the Code, including by talking with their supervisor or Human Resources representative, or by contacting a member of the Cummins legal staff.

Cummins employees can also report their concerns through the Company's ethics website or by calling the Cummins Ethics Help Line. Phone numbers for different locations around the world are listed on the ethics website. Employees can report suspected violations anonymously where permitted by law.

### **TRAINING**

Cummins puts its Code of Conduct principles into practice through comprehensive compliance training, targeting appropriate employee groups. Cummins Ethics and Compliance staff coordinates the training on topics such as conflicts of interest, intellectual property, export compliance, fair competition and treatment of others.

The Company in 2013 updated its online training on anti-bribery through Cummins' new in-house learning management system, the Cummins Learning Center. About 22,000 employees received the training in 19 languages to help facilitate understanding of this critical issue. About the same number of employees received Code of Business Conduct training in 16 languages in 2013.

### **ENFORCEMENT**

Any effective code of conduct must have an enforcement mechanism. Cummins has a team of master investigators stationed around the world to investigate reported abuses.

In 2013, Cummins investigated 1,367 reported Code violations, up from 1,196 in 2012. About 45 percent of those reports came from outside the United States and only 32 percent were reported anonymously.

About 50 percent of the total reports were ultimately substantiated, compared to 54 percent in 2012. Around 33 percent of the substantiated reports resulted in terminations compared to 40 percent in 2012.

The average time to close a case was 14 days, up one day from 2012.



Employees at all levels of the Company are frequently reminded that they have an obligation to report suspected violations of the Code. All reports are investigated and violations at any level of the Company are acted on swiftly and appropriately.

Cummins' senior leaders closely monitor reported violations and approve corrective actions. Each quarter, business unit leaders receive an update on reports in their region or business.

Chairman and CEO Tom Linebarger also receives updates and an annual update is reviewed by the Audit Committee of the Cummins Board of Directors.

#### ETHICS CERTIFICATION

Cummins employees annually certify their compliance with the Company's Code of Business Conduct and related policies and report any exceptions.

In 2013, 18,034 employees and officers – up from 17,666 in 2012, completed their annual Ethics Certification including all members of the Board of Directors.

Internal Audit and Cummins Law Department reviewed all exceptions to ensure they were documented and investigated, according to Company policy.

#### GOVERNANCE BY THE NUMBERS

**twenty-two thousand**

Number of employees who took new Anti-Bribery/Anti-Corruption training in 2013

**1,367**

Reported Code of Conduct violations reported in 2013

**FIFTY**

Percent of substantiated violations determined by Cummins' Master Investigators

**14**

Languages the updated Cummins Supplier Code of Conduct has been translated into

**10**

Principles in Cummins Code of Business Conduct

**eight**

Members of Cummins' Board of Directors

**SEVEN**

Principles in Cummins' Supplier Code of Conduct

**1**

Cummins employees on the Board of Directors

# CUMMINS' BOARD OF DIRECTORS OVERSEES THE COMPANY

*Cummins' Board of Directors represents and protects the interests of the Company's stakeholders, with the legal responsibility for overseeing the affairs of the Company.*

The board consists of eight members with seven of the eight members coming from outside the Company. Chairman and Chief Executive Officer Tom Linebarger is the only Cummins employee on the board. Each director must stand for election annually.

In 2013, Board Director Carl Ware, a retired Coca-Cola Executive and President and Chief Operating Officer of Ware Investment Properties, retired from the board. He joined the board in 2004.

The board is charged with exercising sound and independent business judgment regarding significant strategic and operational issues. It advises senior management and adopts governance principles consistent with Cummins' Vision, Mission and Values.

The board reflects the Company's commitment to diversity with two women and one Latino man within its ranks. The board takes an active role in fulfilling its responsibilities, traveling, for example, to Cummins' Rocky Mount Engine Plant in North Carolina in 2013 to see the Company's facilities there and meet with key personnel.

Board members have also attended the Company's Six Sigma Expo, where employees present the top projects at Cummins using the business problem-solving tool, major Company announcements and have attended briefings on the Cummins-Peterbilt SuperTruck.

The concept tractor-trailer is testing a number of features designed to improve fuel and freight efficiency (page 64).

## ISSUES

The board monitors a number of issues, including:

- » The performance of the Company.
- » The performance of senior management.
- » Compliance with all applicable laws and regulations.
- » Communications and relationships with stakeholders.
- » The effectiveness of internal controls and risk management practices.

## COMMITTEES

Cummins' Board of Directors has six standing committees:

- » Compensation Committee
- » Governance and Nominating Committee



## BOARD MEMBERS

### ROBERT J. BERNHARD

Vice President for Research and a Professor of Engineering at the University of Notre Dame. He joined the board in 2008.

### DR. FRANKLIN R. CHANG DIAZ

Chairman and CEO of the Ad Astra Rocket Company, a spaceflight engineering company based in Houston, Texas. He joined the board in 2009.

### STEPHEN B. DOBBS

Senior Group President at Fluor Corporation, a Fortune 500 company that offers engineering, procurement, construction, maintenance and project management services. He joined the board in 2010.

### ROBERT K. HERDMAN

Managing Director of Kalorama Partners, LLC, a Washington, D.C.-based consulting firm. He joined the board in 2008.

### ALEXIS HERMAN

Chairman and CEO of New Ventures, LLC, a corporate consulting company. She joined the board in 2001 and currently serves as Lead Director.

### N. THOMAS LINEBARGER

Chairman and CEO of Cummins Inc. since January 2012. He joined the board in 2009.

### WILLIAM I. MILLER

President of the New York-based Wallace Foundation focused on K-12 education and the arts. He joined the board in 1989.

### GEORGIA R. NELSON

President and CEO of PTI Resources, LLC, an independent consulting firm. She joined the board in 2004.

- » Audit Committee
- » Finance Committee
- » Safety, Environment and Technology Committee
- » Executive Committee

Cummins complies with all New York Stock Exchange and regulatory requirements concerning the membership of certain committees.

## INTERNAL AUDIT

The board and senior leaders of the Company get objective and independent information on the performance of the Company from Cummins' Internal Audit department.

The Vice President – Internal Audit reports to the Audit Committee of the Board of Directors. The Internal Audit group published 82 audit reports and memos in 2013. To ensure management has addressed and identified risks and implemented corrective action, Internal Audit has a formal follow up process.

The responsible business or functional leader must present a corrective action plan to the Audit Committee of the Board of Directors when a function or business receives an “unacceptable” audit grade.

# RISK MANAGEMENT KEY TO SUSTAINABILITY

*Sustainable risk management is more than just protecting a company's critical assets. It is actively managing risks to protect the company's business, its people and its reputation. Risk management is also about taking acceptable risks to pursue opportunities that allow a company to deliver business objectives and strategies, and increase stakeholder value.*

Helping Cummins' leaders evaluate and manage risk, in all its forms and from all perspectives, is the goal of the Company's Risk Management team.

The team has been evolving in recent years since its shift in 2012 to the Corporate Strategy function. It is wrapping up work on establishing Business Continuity Plans for nearly every Cummins location, about 500 sites in all, including all wholly owned and joint venture Distribution Business Unit (DBU) sites by the end of 2014.

Business Continuity Plans allow site leaders to recognize key risks in advance and prepare for major events that could impact their sites, employees, and ultimately their ability to serve Cummins' customers. The goal of Business

Continuity Plans is to limit business exposure to risks and speed recovery to normal operation.

Each site with a plan is required to update it annually and also run a scenario exercise to test the resilience of the plan.

The team is looking for opportunities to streamline the Business Continuity Planning Process for the sites. In addition, it is also looking at locations where Cummins has clusters of sites such as Columbus, Indiana, and San Luis Potosí, Mexico. There might need to be a shared response to an emergency in those places.

The Risk Management team also continues to prepare a dashboard for the Cummins Board of Directors and senior leaders outlining the biggest risks facing the Company. The dashboard is updated to reflect changes in risks both in and outside Cummins.

While business continuity planning and the dashboard will likely always be key responsibilities for the team in the future, it wants to make progress on broadening its approach to managing risk in 2014. The next step will take place as the team develops a risk vision and mission for the group. The team will be piloting further risk management processes in various areas throughout the Company in 2014.

"We want to provide our businesses with a systematic and collaborative framework for evaluating risk that is embedded into their existing strategic and operational processes," said Nicole McDonald, Director – Enterprise Risk Management. "Our goal is to help them identify, evaluate and respond to risk in a consistent way that enables the Company to achieve its strategic and operational business objectives."



# KEEPING CUMMINS 'SAFE. SURE. SECURE.'

*Cummins Global Security is chartered to protect employees, facilities and information assets by implementing risk reduction strategies across the globe. Achieving this requires a sustainable security program that is collaborative in nature and delivers services that are aligned with the Company's strategic growth objectives.*

In early 2013, Global Security completed a Six Sigma project which identified the need for a mechanism that would allow Cummins to share intelligence and respond to security requests around the world. By October 2013, it introduced a virtual operations center known as the Cummins Response Center (CRC).

The CRC provides around-the-clock capability for medical, security, travel assistance requests, or emergency team activation. The response center puts employees and Cummins entities first, providing real value and quality and the right tools and people to deliver sound security support across the Company.

"The goal of the CRC is to increase our ability to respond in a timely, meaningful and accurate manner to better secure Cummins' assets,"

said Shelley Stewart, Executive Director of Global Security.

The response center maintains a unified system for communication that can handle a vast array of intelligence. This system allows decision-makers to share information and connect from any location at any time. Real-time information can be easily transformed into actionable intelligence that is accurate and relevant to the customer.

Through the CRC, Cummins has a flexible and virtual solution that yields the following benefits to its employees and businesses and meets unique operational challenges:

- » Shared access to security resources across the Company; transparency and virtually accessible communication services.

- » Improved operational efficiency; enhanced collaboration across corporate entities and Area Business Organizations.

Global Security is looking to implement a security culture where employees take personal responsibility not only for their own security, but the security of their fellow employees and the Company.

The strategy will also focus on communicating the value of the response center, and how the program is accessible via hotline or e-mail.

"Now, more than ever, Global Security is responsible for enabling long-term success by making decisions that will allow for future growth," Stewart said.

# GOVERNMENT RELATIONS AND POLITICAL ACTIVITY

*Cummins' government relations employees are working around the world on issues that might have a significant impact on the Company, such as energy policy, environmental legislation, taxes, trade, transportation and more.*



*A Chinese government delegation visits the Cummins Technical Center in Columbus, Indiana, to learn more about U.S. EPA greenhouse gas emissions regulations and how Cummins has gone about meeting them. Emissions are a major issue for environmental regulators in China. Arranging these kind of visits is one of many things done by Cummins government relations team.*

The Company maintains an office in Washington, D.C., but with more than half of Cummins' sales coming from outside the United States, the Company also has government relations employees in China, Brazil and India.

These employees work to ensure that Cummins' voice is heard. For example, the Company works extensively to promote and protect global emissions standards from delay or modification and supports government efforts to establish greenhouse gas and fuel consumption standards for commercial vehicles.

The Cummins government relations staff also works to foster greater international cooperation and understanding. Working with the U.S. government, Cummins has hosted international visitors to the Company's headquarters in Columbus, Indiana, and various other sites to learn about best practices on emissions

enforcement, development of fuel economy standards, and combined heat and power projects.

Cummins belongs to a number of trade organizations to further its business interests. These organizations help the Company by leveraging Cummins' resources with other companies on issues where we share similar positions.

While Cummins might not agree with the positions these associations take on every issue, the Company believes participating in these groups helps ensure government officials know where Cummins stands on matters critical to the Company.

## **CORPORATE CONTRIBUTIONS**

Cummins bans contributions using corporate funds to candidates, political parties and

independent expenditures, including advertisements that support or oppose individual candidates.

The Company also will not use corporate funds to contribute to 501 (c) (4) and 527 tax-exempt groups in the United States that are engaged in political activity or make payments to influence issues unless the contribution or payment advances an issue directly tied to the Company's core values and business interests.

In those cases, Cummins is committed to publicly disclosing any payments including recipient names and amounts.

In 2013, the Company contributed \$100,000 to Freedom Indiana, the principal opposition group to Indiana House Joint Resolution 3, a proposed amendment to the state constitution banning gay marriage (page 119).

#### **CIPAC**

In the United States, political contributions are made by the Cummins Inc. Political Action Committee (CIPAC), but the committee is funded solely by voluntary employee contributions. CIPAC makes contributions to state and federal candidates on a bipartisan basis after review and approval by CIPAC's Executive Committee and according to federal law.

For a complete list of the political action committee's contributions to candidates, go to [www.fec.gov](http://www.fec.gov).

CIPAC is governed by corporate policies and bylaws that state:

- » All CIPAC contributions are strictly voluntary.
- » The Company will not reimburse employees directly or indirectly for political contributions.
- » Employees will not be pressured to contribute to CIPAC or make any other personal political contribution.
- » A decision not to contribute to CIPAC shall not disadvantage an employee's career in any way.

Contributions to political candidates and political organizations are based on the following criteria:

- » Public integrity of the candidate.
- » Representation of a Cummins facility or employees.
- » Support for issues of importance to Cummins.
- » Timely and effective constituent service.
- » Political leadership or organization.
- » Support for the Company's values.

All of CIPAC's political activities are disclosed to the Cummins Board of Directors in an annual political contribution report.

#### **LOBBYING**

The following is a list of U.S. trade organizations to which Cummins paid dues in excess of \$50,000 during calendar year 2013 and the U.S. Chamber of Commerce, which fell below the \$50,000 threshold.

Listed with each entity is Cummins' estimation of the portion of these dues used by each organization for lobbying or other political expenditures.

##### **The American Trucking Association**

**\$12,780**

##### **The Business Roundtable**

**\$26,283**

##### **The Diesel Technology Forum**

**\$127**

##### **The Engine Manufacturers Association**

**\$8,682**

##### **The National Association of Manufacturers**

**\$15,759**

##### **U.S. Chamber of Commerce**

**\$12,500**

## CUMMINS CREATES SHAREHOLDER VALUE IN 2013

*Even in the face of difficult global economic conditions in 2013, Cummins generated a record \$2.1 billion in cash from operations, continued investing in new technology, launched more than 70 new or updated products and partnered with its customers to help them succeed and expand in markets across the globe.*



Cummins' work in 2013 has positioned the Company for profitable growth to benefit all of its stakeholders when better economic conditions return.

In 2013, Cummins and its unconsolidated joint ventures invested \$1 billion in capital expenditure projects. The Company also spent over \$700 million on research and development which will help secure Cummins' long-term growth and sustainability.

"The most important way we can provide long term value to our stakeholders is to invest in products and projects that drive profitable growth and strong returns on investment," said Cummins Chairman and CEO Tom Linebarger.

*Cummins leaders announce that production of a light duty diesel will start at the Columbus Engine Plant in Columbus, Indiana, for the next generation of the Nissan Titan pickup truck.*



## **“THE MOST IMPORTANT WAY WE CAN PROVIDE LONG TERM VALUE TO OUR STAKEHOLDERS IS TO INVEST IN PRODUCTS AND PROJECTS THAT DRIVE PROFITABLE GROWTH AND STRONG RETURNS ON INVESTMENT.”**

### **TOM LINEBARGER**

CUMMINS CHAIRMAN AND CEO

In addition to investing in new products and the Company's distribution network, Cummins also increased cash returned to shareholders in 2013. The Company raised its dividend by 25 percent and repurchased 3.3 million shares of Cummins stock, returning to shareholders a total of \$801 million, nearly 40 percent of the Company's operating cash flow.

“I am pleased that in this environment of weak global growth, we were able to generate record cash flow from operations that allowed us to continue to invest in the business and increase the cash returned to shareholders by 34 percent in 2013,” Linebarger said.

### **YEAR AT A GLANCE**

Revenues for all of 2013 were \$17.3 billion, flat with 2012. North American revenues increased 3 percent but were offset by international sales which declined by 4 percent. Within international markets, declines in Mexico, India, Australia and Europe offset growth in China and Brazil.

Earnings Before Interest and Taxes (EBIT), excluding special items, were \$2.16 billion in 2013 or 12.5 percent of sales, compared to \$2.35 billion or 13.6 percent of sales in 2012.

Net income attributable to Cummins for the full year was \$1.48 billion (\$7.91 per diluted share), down from \$1.68 billion (\$8.83 per diluted share) in 2012, excluding special items. Cash from operations was a record \$2.1 billion, compared to \$1.5 billion in 2012.

The Components division, which produces exhaust aftertreatment systems, filters, turbochargers and fuel systems, recorded record revenue in 2013, but the Company's Engine and Power Generation businesses saw no growth over the course of the year as weakness in international markets offset growth in North America.

“We faced weak demand in important regions and end markets in 2013,” Linebarger said. “Revenues for the year ended flat with 2012 as strong growth in the Components business, market share gains in the North American medium-duty truck market and distributor acquisitions offset weakness in global mining markets, international power generation and the North American heavy-duty market.”

Nevertheless, 2013 had many significant highlights, including:

- » Cummins opened a new joint venture plant in China and began production of the new L9.3 engine targeting customers in the Chinese construction market as well as other parts of the world.
- » The Company entered into a new partnership in North America with a customer who will use the Cummins 5.0L V8 Turbo diesel engine to increase its product offerings (page 36).
- » Cummins announced plans to acquire the remaining equity in its North America distributors to leverage their expertise and provide customers the best support.
- » Cummins was named Diesel Progress North American magazine's 2013 Newsmaker of the Year for introducing a broad range of on- and off-highway engines and power systems.
- » Moody's Investors Service, Inc., raised the Company's credit rating to "A3" in 2013 and changed Cummins' outlook to "stable." Meanwhile, Standard & Poor's Rating Services and Fitch Ratings confirmed the Company's

rating as "A" subsequent to the third quarter issuance of \$1 billion in debt.

- » The Company was named to Gartner's Supply Chain Top 25 list finishing 23rd. The list honors companies that integrate supply, demand and products into a "profitable response."

### LOOKING AHEAD

Cummins' leaders believe economic conditions will remain challenging in 2014, but there are several key macroeconomic and industry trends that will drive sustained growth opportunities for Cummins, including:

- » The implementation of new emission standards around the world.
- » Increasing fuel costs driving customers to focus on the fuel economy
- » Rising electricity needs growing faster than supply.
- » Further globalization where Cummins' partners look for continued growth outside their home markets.
- » Increasing infrastructure needs and investments in developing countries.

These trends, combined with Cummins leading technology, unmatched global presence and strong partnerships with the world's leading and fastest growing Original Equipment Manufacturers (OEMs), will allow the Company to capture and maintain strong market positions and ultimately grow Cummins' business profitably and sustainably to the benefit of all Cummins' stakeholders.

### FINANCIAL PERFORMANCE AT A GLANCE

Here's a summary of Cummins' performance since 2009.

Year	Sales	Net income attributable to Cummins
<b>2009</b>	\$10.8 billion	<b>\$428 million</b>
<b>2010</b>	\$13.2 billion	<b>\$1.04 billion</b>
<b>2011</b>	\$18 billion	<b>\$1.85 billion</b>
<b>2012</b>	\$17.3 billion	<b>\$1.68 billion</b>
<b>2013</b>	\$17.3 billion	<b>\$1.48 billion</b>

# SUSTAINABILITY REPORT DISCLOSURES

*The Cummins Sustainability Report is done in the spirit of the Global Reporting Initiative (GRI). In that spirit, the Company is listing here disclosures in the report although this does not follow the GRI format:*

## ENVIRONMENT

Cummins' new environmental sustainability goals.....	21
GHG emissions, 2013 .....	41
GHG goal .....	41
Water use, 2013.....	43
Water use, 2010-2013.....	44
Disposed waste, 2010-2013 .....	45
U.S. processed hazardous waste, 2010-2013 .....	45
Waste footprint composition .....	45
Waste recycling .....	45
Energy use by fuel type, 2010-2013 .....	46
Energy use by facility type, 2013 .....	46
U.S. and non-U.S. GHG emissions, 2010-2013 .....	46
Recycled materials, 2010-2013 .....	46

GHG emissions by country .....	47
GHG emissions by business unit .....	47
GHG emissions by type .....	47
Global building standards .....	48
HSE Environmental Management System.....	48

## CORPORATE RESPONSIBILITY

Employee community service hours.....	70
United Way giving.....	72
Environmental Challenge winners.....	78-79
Philanthropy grants.....	96-101

## SAFETY

Incidence Rate .....	105
Severity Case Rate .....	105
Major Injuries and Dangerous Occurrences Rate.....	105
Severity Case Rate, 2003-2013.....	106
Incidence Case Rate, 2003-2013 .....	106

## DIVERSITY

Country of Birth Workforce, 2008-2013 .....	118
Country of Birth Leaders, 2008-2013 .....	118
Women at Cummins, 2008-2013.....	118
Women Leaders at Cummins, 2008-2013 .....	118
Workforce by location, 2013 .....	118
Spending with diverse suppliers, 2008-2013 .....	125

## GOVERNANCE

Supplier Code of Conduct .....	128
Cummins Code of Conduct violations.....	130
Lobbying expenditures .....	137
Funds for tax exempt groups.....	137

## FINANCIAL

Sales, net income, 2008-2013.....	140
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## CUMMINS' SUSTAINABILITY REPORTING DOESN'T END WITH THIS DOCUMENT.

Go to our website – [www.cummins.com/sustainability](http://www.cummins.com/sustainability) – for regular updates on how we're meeting the needs of all of our stakeholders and practicing good corporate citizenship.

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