



UNION PACIFIC

# 2015 Building America Report

A report to communities on our social, environmental and economic sustainability progress.



**BUILDING AMERICA®**

# About the Report

Union Pacific's mission of service defines us and drives our commitment to safely transport products across the country, provide good jobs, operate ethically and invest in our country by investing in our communities.

This report details our progress in key areas that together support social, economic and environmental sustainability pillars: operating safely, strengthening communities, engaging employees and working to preserve the environment. We also summarize our 2015 financial performance.

We used the [Global Reporting Initiative's G4 Guidelines](#) to inform reporting on our most material social responsibility issues. This publication focuses on initiatives and accomplishments from the 2015 calendar year and includes 2015 data, unless otherwise noted.

## VISION

**Building America**

## MISSION

**The Men and Women of Union Pacific are Dedicated to Serve**

## VALUES

**Passion for Performance  
 High Ethical Standards  
 Work as a Team**

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## Letter to Stakeholders



As a company that has operated for more than a century and a half, sustainability is built into the fabric of Union Pacific's performance. We recognize our responsibilities as a corporate citizen and are proud to move the goods Americans use every day in a safe, efficient and environmentally responsible manner.

Sustainable business practices are fundamental to Union Pacific's success. They are inherent to our evolved strategy that challenges us to rise above daily tasks and take a 10,000-foot view of where we need to go and what it takes to get there. We call it, "Creating Value the UP Way," and it requires aligning our six value tracks: world-class safety, excellent customer experience, innovation, resource productivity, maximized franchise and an engaged team. We introduced these interrelated tracks in late 2015 as our foundation for success that provides competitive advantages for customers, job stability for employees, returns for shareholders and economic strength in our communities.

Overall economic conditions, uncertainty in the energy markets and the strength of the U.S. dollar contributed to a challenging 2015. Volume declines in coal, international intermodal, frac sand, metals, crude oil and grain shipments more than offset volume growth in domestic intermodal, finished vehicles, automotive parts, industrial chemicals and plastics shipments. We will continue responding to market uncertainties with resiliency to support customers and pursue new business development opportunities.

While we adapt to changing markets, Union Pacific's commitment to Building America and investing in a strong, healthy railroad remains constant. Last year's record \$4.3 billion capital program strengthened U.S. transportation infrastructure through private investment, not taxpayer dollars. Investing in a safe, efficient railroad helps communities attract new business, clears trucks off congested highways and reduces wear and tear on publicly funded roads.

Our Building America Report provides a macro view of how we performed in key areas. Each section in this report provides insight on our progress, challenges and commitments.

- Operating Safely illustrates how Union Pacific became the safest Class I railroad in the United States, based on our 2015 employee reportable injury rate. This section also discusses our Crossing Assessment Program, which is focused on enhancing public safety at railroad crossings.
- Strengthening Communities highlights how we improve the quality of life in the communities where our employees live and work, as well as our specific efforts to recruit military veterans, women and millennials.
- Engaging Employees demonstrates how we believe our company's success rests on the shoulders of our people, and how we support our diverse workforce by providing tools that foster employee growth.
- Preserving the Environment underscores Union Pacific's commitment to reducing our environmental footprint, while creating a sustainable economy that benefits our entire country.

We are proud of the work we do and understand there is always more to learn and improve upon. That is why we value continuous conversation with our stakeholders and view this report as a piece of that broader discussion. I invite you to use this report to learn more about Union Pacific and what we hope to achieve.

A handwritten signature in black ink, appearing to read "Lance M. Fritz". The signature is stylized and fluid.

**Lance Fritz**  
Chairman, President and CEO

## Key Performance Aspects

<b>FINANCIAL</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Reported net income</b>	\$4.4 billion	\$5.2 billion	\$4.8 billion
<b>Operating revenue</b>	\$22.0 billion	\$24.0 billion	\$21.8 billion
<b>OPERATING SAFELY</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Rail crossing accidents</b> (per million train miles)	2.22	2.34	2.28
<b>Reportable injury rate*</b> (per 200,000 employee-hours)	1.10	0.98	0.87
<b>Public outreach</b>	About 9,000 events reached more than 616,300 people	About 13,580 events, reached more than 629,500 people	More than 15,000 events reached more than 600,000 people
<b>STRENGTHENING COMMUNITIES</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Capital program</b> (private funds, no taxpayer dollars)	\$3.6 billion	\$4.1 billion	\$4.3 billion
<b>Spend with minority- and women-owned businesses</b>	\$484 million	\$509 million	\$423 million
<b>ENGAGING EMPLOYEES</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Percent of employees unionized</b>	86%	85%	85%
<b>Workforce diversity</b>	6% Female, 94% Male 1% Asian 11% Black 74% Caucasian 12% Hispanic 2% Native American	6% Female, 94% Male 2% Asian 11% Black 73% Caucasian 12% Hispanic 2% Native American	6% Female, 94% Male 2% Asian 11% Black 73% Caucasian 12% Hispanic 2% Native American
<i>U.S. Population 2014 census data (permits reporting of more than one race): 5% Asian, 13% Black, 77% Caucasian, 17% Hispanic, 1% Native American</i>			
<b>PRESERVING THE ENVIRONMENT</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
<b>Energy usage</b>	45.7 million megawatt hours	48.4 million megawatt hours	44.5 million megawatt hours
<b>Water usage withdrawals**</b>	1.90 billion gallons	1.78 billion gallons	1.54 billion gallons
<b>GHG emissions</b>			
Intensity per million gross ton miles	12.6 metric tons	12.6 metric tons	12.7 metric tons
Locomotive fossil fuel emissions (scope 1)	11,153,933 metric tons	11,850,514 metric tons	10,834,984 metric tons
Fossil fuel emissions (scopes 1 and 2)	11,953,871 metric tons	12,666,733 metric tons	11,683,549 metric tons
Employee travel (scope 3)	18,210 metric tons	19,977 metric tons	19,803 metric tons
Purchases from biomass sources	94,519 metric tons	87,744 metric tons	129,600 metric tons
<b>Waste**</b>			
Total waste generated	1.15 million tons	1.05 million tons	1.04 million tons
Tonnage diverted from landfills	79%	81%	68%
<b>E-waste</b>	Approximately 410,000 pounds recycled or reused	Approximately 270,000 pounds recycled or reused	Approximately 270,000 pounds recycled or reused

\*Restated 2013 to reflect previous employee-hour miscalculations

\*\*Restated based on revised methodologies

## Social, Environmental and Economic Sustainability Goals

Union Pacific's vision of Building America aligns with social, environmental and economic sustainability pillars. Our goals include:

- Operating a safe, efficient and environmentally responsible rail network that delivers the best customer service.
- Providing employees with the safest work environment.
- Constantly improving employee, customer and public safety through training, education, innovation and investment.
- Developing employee programs and processes that make us an employer of choice.
- Investing in our network infrastructure to enhance safety, service and efficiency.
- Growing our business profitably and responsibly so we can invest in the future and make a positive impact on our employees, communities, customers and shareholders.
- Creating economic strength and improving the quality of life in the 7,000 communities where we operate.

### ZEROING IN ON SAFETY

No injury is acceptable. That's why our ultimate goal is achieving annual safety records toward zero:

- Employee injuries
- Trespasser incidents
- Vehicle grade crossing accidents
- Train derailments

## Fuel Consumption Rate and GHG Emissions Goal

We adjusted our goal to reduce locomotive fuel consumption based on the well-documented reduction in heavier weight commodity shipments. Our revised goal is to reduce Union Pacific's fuel consumption rate by 0.5 percent each year from 2015 to 2017. Measured on a gross ton basis, this will result in a 0.5 percent annual greenhouse gas emissions reduction rate. We will continue to evaluate our fuel consumption goal as we adjust to changing market conditions.

More information about the steps we are taking to improve fuel efficiency is located in the [Preserving the Environment section](#).

## Risk Oversight of the Company

Our enterprise risk management process is dynamic and continually monitored so we can identify and address with agility any potential risks that arise in the ever-changing economic, political and legal environment in which Union Pacific operates.

Management identifies and prioritizes enterprise risks and regularly presents them to our board of directors for review and consideration. Senior executives responsible for implementing mitigation strategies for each of the company's enterprise risks, along with the chief compliance officer, provide reports directly to the board during the year. We also report risk factors in our [Annual Report on Form 10-K](#).

The board Audit Committee oversees the company's internal audit of enterprise risks. Internal auditors present to the Audit Committee their findings regarding mitigating controls and processes for enterprise risks. The Audit Committee, in turn, reports those findings to the entire board.

## Stakeholder Outreach

Union Pacific interacts with many different groups in the course of our operations, and we take into account their range of perspectives in setting social, environmental and economic sustainability priorities.

Key stakeholders:

- Communities
- Customers
- Employees
- Shareholders

Additional audiences:

- Advocacy groups
- Policy makers and regulators
- Suppliers

### COMMUNICATION CHANNELS

#### Communities

- Employee volunteers
- UP CARES (Crossing Accident Reduction and Education Safety program)
- Employee and corporate giving
- Nationwide 24-hour emergency hotline: 888-877-7267
- Safety training for fire and law enforcement personnel
- Union Pacific and communities joint emergency response committees
- Employee recruiting
- State-specific public affairs contacts and outreach
- Public-private partnerships
- Facebook, LinkedIn, Twitter, YouTube and other social media channels
- Inside Track online news
- Event sponsorships
- News releases
- RSS feed

#### Customers

- Union Pacific account representatives
- National Customer Service Center
- Customer satisfaction surveys
- Web portal
- Marketing

- Electronic commerce capabilities
- Industry-specific customer education seminars
- Customer news and service updates
- Events and trade shows
- Partnerships and memberships
- Supply chain impact evaluation for customers
- Pinnacle Awards for chemicals customers
- Innovative customer partnerships, including TRANSCAER
- Carbon Emission Estimator
- News releases
- RSS feed

#### Employees and Retirees

- UPOne daily news updates
- Employee website
- Employee ethics hotline
- Business ethics bulletins
- Union Pacific Information Television
- Senior management online and in-person town halls
- Craft-specific and regional employee newsletters
- Labor Relations Connection, an online portal for union employees
- Retirees and families website
- Employee Resource Groups
- Safety policies, training and certification programs
- Education assistance and management training
- Friend to Friend employee network
- Performance management
- Surveys and focus groups
- Leadership meetings
- Recognition programs
- Employee clubs
- Peer Support
- CEO letters
- Family days
- Company calendar

#### Shareholders

- Annual reports and proxy statements
- Investor conferences
- Shareholder meetings with management
- Earnings conference calls
- SEC filings
- Quarterly earnings reports
- Email alerts
- Website FAQ
- Annual Fact Book

#### Regulatory Officials

- Union Pacific Environmental Management Program
- Ongoing dialogue via our Washington, D.C.-based staff
- Participation in the Association of American Railroads
- Commitment to meet voluntary agreements with the California Air Resources Board and other states
- Collaboration with U.S. Customs and Border Protection
- Employee and corporate regulatory and legislative advocacy
- Voluntary participation in initiatives, including the U.S. Environmental Protection Agency's SmartWay Transport Partnership
- News releases
- RSS feed

#### Suppliers

- Competitive bid process
- Electronic commerce capabilities
- Supplier diversity program
- Supplier Code of Conduct
- Supplier performance tracking system
- Supplier quality program
- Website FAQ

## About Union Pacific



Union Pacific is a member of many national industry and business organizations, including:

- American Frozen Foods Institute
- American Wind Energy Association
- Association of American Railroads
- Food Shippers of America
- Global Environmental Management Initiative
- GoRail
- GreenBiz Executive Network
- National Association of Manufacturers
- National Business Group on Health
- National Freight Transportation Association
- National Grain and Feed Association
- National Minority Supplier Development Council
- National Safety Council
- Operation Lifesaver
- United States-Mexico Chamber of Commerce
- U.S. Chamber of Commerce
- Women's Business Enterprise National Council

Union Pacific Railroad is the principal operating company of Union Pacific Corporation (NYSE: UNP). One of America's most recognized companies, Union Pacific Railroad connects 23 states in the western two-thirds of the country by rail, providing a critical link in the global supply chain. From 2006 to 2015, Union Pacific invested approximately \$33 billion in its network and operations to support America's transportation infrastructure.

The railroad's diversified business mix includes Agricultural Products, Automotive, Chemicals, Coal, Industrial Products and Intermodal. Union Pacific serves many of the fastest-growing U.S. population centers, operates from all major West Coast and Gulf Coast ports to eastern gateways, connects with Canada's rail systems and is the only railroad serving all six major Mexico gateways. Union Pacific provides value to its roughly 10,000 customers by delivering products in a safe, reliable, fuel-efficient and environmentally responsible manner.

## Diversified Business Products

Union Pacific moves the goods American families and businesses use every day. Just about everything in homes, offices, manufacturing facilities, construction sites and stores moves by train at some point.

### **Agricultural Products** | Revenue: \$3.6 billion

We haul the products that feed the nation and many parts of the world, efficiently delivering whole grains and other agricultural goods.

### **Automotive** | Revenue: \$2.2 billion

Union Pacific provides transportation and logistics for automotive parts, finished vehicles and aftermarket vehicles. We directly serve five vehicle assembly plants, distribute imported vehicles from the West Coast and Gulf of Mexico, and operate or access distribution centers for all major automotive manufacturers.

### **Chemicals** | Revenue: \$3.5 billion

Union Pacific carries the chemicals used to clean drinking water, produce plastics and fertilize our crops. We also transport petrochemicals, crude oil extracted from U.S. shale locations and soda ash.

### **Coal** | Revenue: \$3.2 billion

Coal generated about 30 percent of America's electricity in 2015. Union Pacific ships coal from mines in the Southern Powder River Basin, Utah, Colorado, southern Wyoming and southern Illinois. Our geographic reach and connections allow us to deliver coal to electric plants across the nation, West Coast and Gulf Coast ports, and facilities on the Mississippi and Ohio Rivers and Great Lakes.

### **Industrial Products** | Revenue: \$3.8 billion

Union Pacific ships a variety of raw materials and finished goods, including steel, pipe, frac sand, cement, military equipment, wind turbine components and lumber.

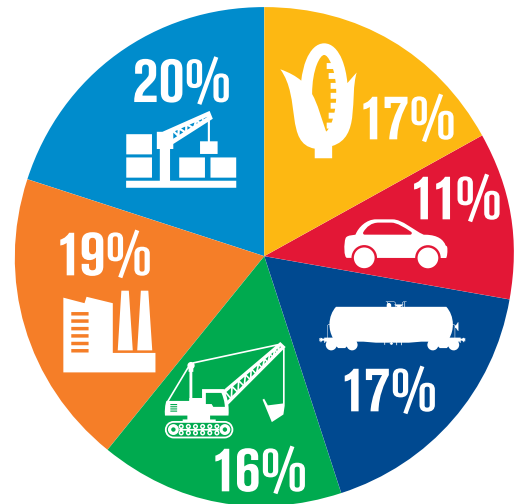
### **Intermodal** | Revenue: \$4.1 billion

Intermodal involves transporting freight in an intermodal container or vehicle using multiple modes of transportation (rail, ship and truck). This method reduces cargo handling and improves security and efficiency. One Union Pacific intermodal train can take several hundred trucks off America's congested highways. We deliver a wide range of multimodal solutions for domestic and international freight shippers moving products such as electronics, toys, furniture, clothing and auto parts.

### **Mexico Markets**

Union Pacific is the leading freight transportation services provider to and from the United States-Mexico border and is the only railroad to serve all six major Mexico gateways. Revenue from our six business units includes \$2.2 billion from Mexico in 2015.

### 2015 FREIGHT REVENUE





## Governance and Ethics

Our commitment to ethics begins with our board of directors and is maintained through every level of our organization. We work diligently to uphold the highest standards, and to provide quality service and value to our customers, investors and employees.

We believe that how we do things is as important as what we do. All Union Pacific employees are trained on our [Policy on Ethics and Business Conduct](#), “The How Matters.” The policy conveys the basic principles of ethical business conduct expected of all employees. As a foundation, the principles are grounded in compliance with applicable laws and rules, and observe the highest ethical standards, including honesty, fairness, integrity and respect.

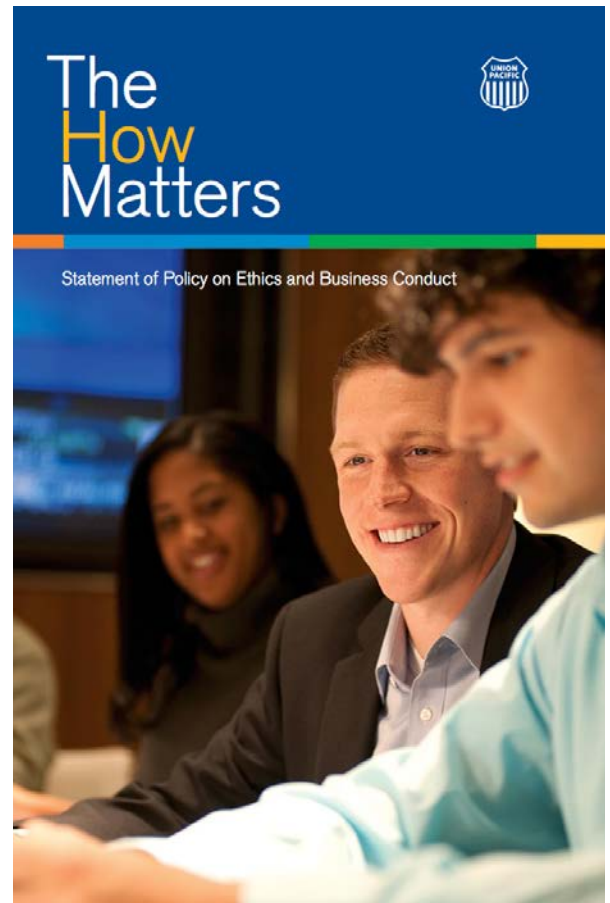
See [Corporate Governance](#) on our website for other relevant policies and procedures, as well as information on our board of directors.

### ETHICS EDUCATION

Union Pacific’s Policy on Ethics and Business Conduct, “The How Matters,” was updated in 2015 and introduced to employees during our second annual Ethics Awareness Week.

The policy has a new, easy-to-read format that provides real-world examples of ethical obligations. Its rollout included computer-based training with question-and-answer segments to help employees check their understanding of topics, and an online article series that addressed workplace concerns and the importance of ethics to Union Pacific’s reputation.

The How Matters is at the heart of how our dedicated employees carry out our mission and values. Our continuous conversation about ethical behavior and how we treat each other ensures The How Matters is part of everything we do at Union Pacific.



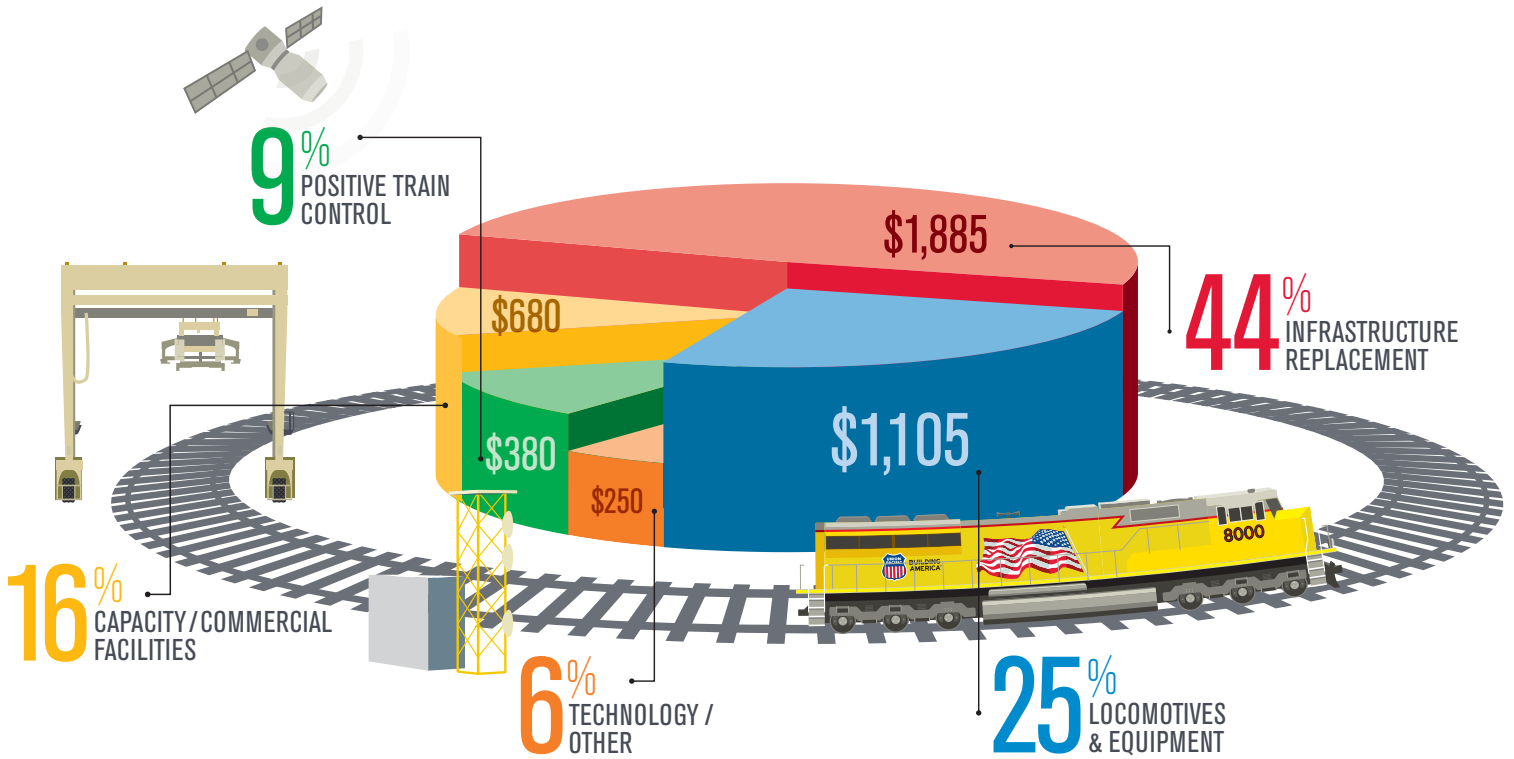
## Key Awards and Recognition

- CDP S&P Climate Disclosure Leadership Index
- Civilian Jobs Most Valuable Employer List
- Diversity Journal's 25 Most Influential Companies for Veteran Hiring
- Member of the EPA's Mobile Sources Technical Review Subcommittee
- Forbes' Best Employers List
- Fortune's Most Admired in Industry List
- Glovis Club Elite – Top Service Provider
- Finalist for the fifth annual Lee Anderson Veteran and Military Spouse Employment Award
- Military Times EDGE Best for Vets List
- National Business Group on Health – Healthy Lifestyles Recipient
- Nissan Cost Leadership Award
- Nissan Zero-Emission Leadership Award
- Road Runner Intermodal Service Top 10 Customer
- Toyota Customer Service and Service Performance Awards
- Best of the Best by US Veterans Magazine
- US Veterans Magazine Top Veteran-Friendly Companies
- Recognized as Top Ten Vet Friendly Employer by Veteran Recruiting

# Financial Performance and Capital Investment

For the full year 2015, Union Pacific reported net income of \$4.8 billion or \$5.49 per diluted share. This compares to \$5.2 billion or \$5.75 per diluted share in 2014, 8 and 5 percent decreases, respectively. Operating revenue totaled \$21.8 billion versus \$24.0 billion in 2014. Operating income totaled \$8.1 billion, an 8 percent decrease from a record-setting 2014.

## \$4.3 BILLION CAPITAL INVESTMENT In Millions



## Delivering Value to Our Customers

Open lines of communication and intuitive technology are critical to creating an excellent customer experience where our shippers have access to the information they need when they need it.

Our Customer Satisfaction Survey provides valuable feedback on a broad range of service components, opportunities for strengthening our product and comparative performance measurements.

We introduced the MyUPRR app last year, making it more convenient for customers to monitor and manage rail shipments. The app offers customers a mobile option, in addition to their customized UP Web portal, for accessing shipment information, locating and releasing shipments, reporting service issues, and receiving rail operations updates.

Our National Customer Service Center and dedicated marketing and sales representatives are still a click or phone call away. The MyUPRR App is simply the latest example of how we continually look for ways to enhance the customer experience.

### WIND ENERGY GROWTH

Union Pacific is one of the leaders in wind energy component transportation. Working with our subsidiary, Union Pacific Distribution Services (UPDS), we have transported an estimated 40,000 wind energy components since 2006. This equals approximately 5,000 wind turbines that can power about 1.8 million U.S. households.

According to the American Wind Energy Association, wind energy generating capacity increased 28 percent between 2010 and 2014. During the first three quarters of 2015, 3,596 megawatts of wind capacity were installed in the United States, double the rate of 2014.

As the need to transport wind energy components grows, rail offers shippers a more fuel-efficient alternative to trucks, and also reduces highway congestion, and wear and tear on roads.

The United States Department of Energy expects wind energy will grow as our country looks to lessen its dependence on fossil fuels. Union Pacific and UPDS are well-positioned to support customers' efforts to power our country with clean and sustainable energy.



### LESSONS LEARNED FROM CHIBERIA PROTECT NATION'S BUSIEST RAIL HUB

Danger warnings were issued when heavy snowfall and freezing temperatures blew into the Chicago area in the winter of 2014, creating a storm meteorologists named CHlberia. The extreme conditions taxed our employees and equipment as we worked to continue rail operations.

The snow had not yet melted when Union Pacific started planning for the next storm. Learning from CHlberia's challenges, we crafted a winter weather plan to maintain service in the Chicago area, a vital transportation hub that handles one-fourth of the nation's freight rail traffic – about 37,500 rail cars daily.\*

Key winter weather initiatives activated in 2015 included:

- Mobilizing winter weather command centers across our Northern Region.
- Securing new snow removal equipment, such as generators and blizzard buses. Blizzard buses are modified cabooses used to store supplies and provide shelter for crews.
- Increasing mechanical and engineering personnel to provide around-the-clock coverage.

Even though we face challenging conditions every winter, employees have the know-how to overcome rail-related issues no matter what Mother Nature sends our way.

\*Source: Chicago Region Environmental and Transportation Efficiency Program.

## Local Economic Impacts

### UNION PACIFIC'S ROLE IN CROSS-BORDER TRADE

#### Opening the Kinney County Railport – The Beer Business

The Union Pacific Kinney County Railport opened in 2015, supporting growing import beer businesses near Piedras Negras, Coahuila, Mexico.

Rail cars are cleaned, maintained and prepared to meet food-grade guidelines for customers at this \$40 million facility located between Eagle Pass and Brackettville, Texas. Once cleaned, the cars are transported to Mexico to be loaded with beer bound for the United States.

Through the railport's opening, we also created more than 100 jobs to support the facility, which operates 24 hours a day, seven days a week.

As a local community member, Union Pacific contributes to several Kinney County development projects. In 2015, the Union Pacific Foundation provided the county a \$35,000 grant to build a learning center in Brackettville and helped refurbish a high school gymnasium. We also sponsored the annual Walk for Life cancer event.



*Representatives from Union Pacific and Harbor Rail Services cut the ribbon at the Kinney County Railport grand opening.*

#### Making Railroad History – West Rail International Bridge

Union Pacific made railroad history last year as trains traveled over the first international railroad crossing bridge built in more than a century. The 8-mile West Rail International Bridge, which spans the Rio Grande River, replaced the Brownsville and Matamoros (B&M) Bridge that connected Brownsville, Texas, and Matamoros, Tamaulipas, Mexico.

The relocation of our border crossing from the B&M Bridge to the West Rail International Bridge helped eliminate 14 railroad crossings and reduced motorist congestion in the Brownsville community, which has grown significantly since B&M Bridge's construction in 1910.

U.S. Secretary of Commerce Penny Pritzker and government officials from Mexico spoke at the West Rail International Bridge's inaugural ceremony in August 2015. Officials from the Department of Homeland Security, Cameron County, and the cities of Brownsville and Matamoros also attended the historic celebration.



*The West Rail Bridge connecting Brownsville, Texas, and Matamoros, Tamaulipas, Mexico, is the first international rail bridge built in more than a century.*

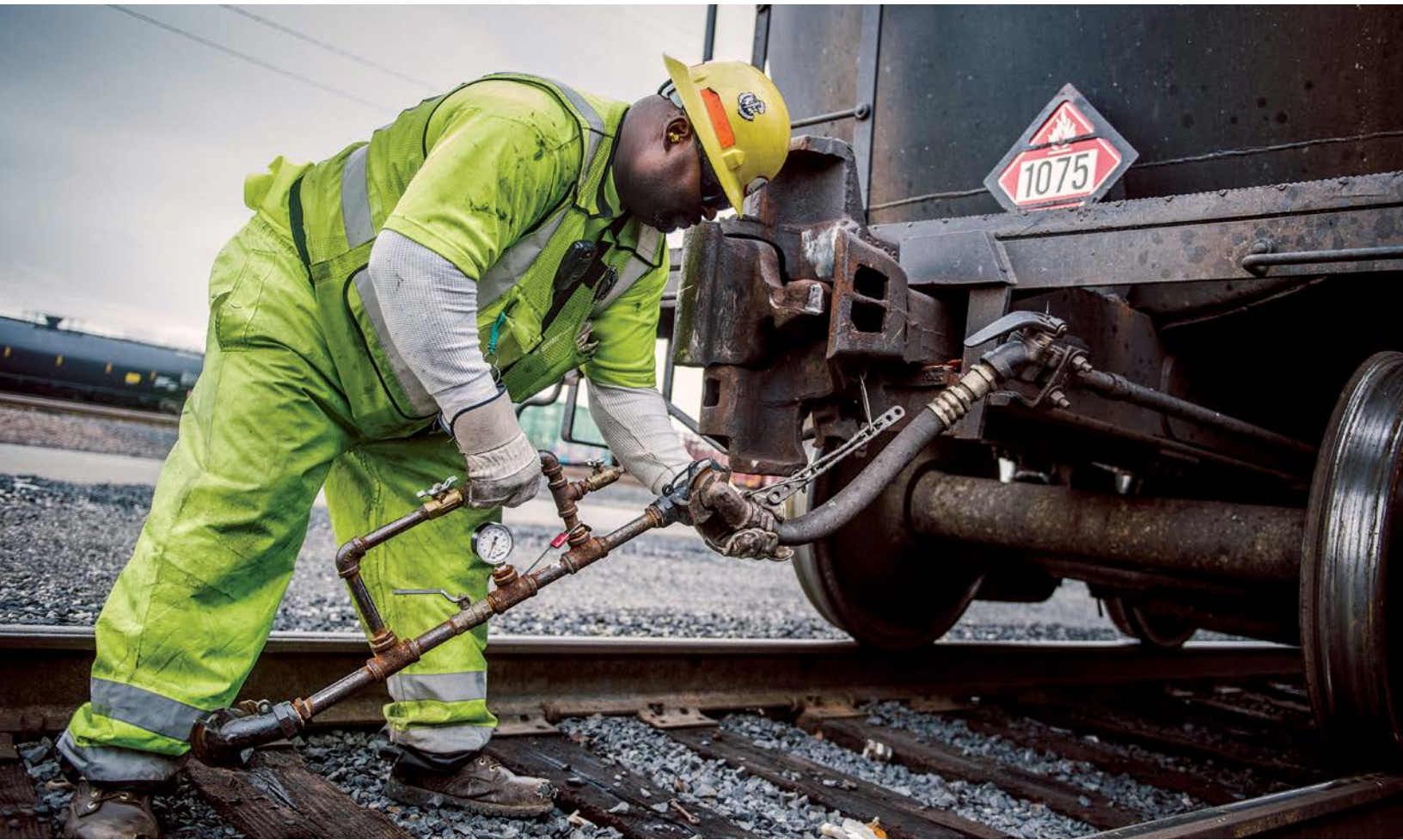
#### Investing in the Future – Port Laredo Expansion Project in the Lone Star State

Freight moving in Texas is projected to grow from 2.6 billion tons to more than 3.8 billion tons between 2014 and 2040, according to the [Texas Freight Mobility Plan](#). Transportation planners warn an extreme increase could worsen already congested highways, making railroads vital to the health of the state's transportation system.

Union Pacific has invested more than \$2.8 billion in our 6,310-mile rail network in the Lone Star State since 2009. Last year, we made infrastructure improvements in Houston, the Dallas-Fort Worth area, San Antonio and along the south Texas border. We also broke ground on a multi-year project to expand our Port Laredo intermodal facility, where more than 500 trucks enter and exit daily.

The expansion project will include building additional infrastructure across 50 acres of land, extending rail and installing an automated gate system that will reduce truck inspection times from about eight minutes to 90 seconds.

Automated inspections eliminate the time trucks sit idle while inspectors conduct a physical examination. Increased efficiencies at Port Laredo will help reduce emissions in Laredo and its sister city, Nuevo Laredo, where approximately \$280 billion in U.S. trade with Mexico crosses annually.



Shawn Patrick, car inspector

## Operating Safely

Safety is Union Pacific's number one priority. Nothing is more important than the well-being and security of our employees and the people who reside in the communities where we live and work. Safe operations also are critical to meeting our customer commitments. We invest significant resources in training employees, developing innovative technologies and increasing rail safety awareness. Our ultimate goal is to operate an incident-free environment, which we aim to achieve by meeting safety milestones each year.

### **HIGHLIGHTS, CHALLENGES AND OPPORTUNITIES**

Union Pacific became the safest U.S. Class I railroad in 2015, reducing our employee reportable injury rate to an all-time low. This is a significant accomplishment and a tribute to our employees who take ownership in making sure everyone goes home safely to their families.

Union Pacific's crossing accident rate improved to 2.28 accidents per million train miles, compared to 2.34 in 2014. We continue to enhance our Union Pacific Crossing Accident Reduction Education and Safety (UP CARES) program and reached new community members with comprehensive social media campaigns and other efforts that address rail safety.

## Community Public Safety

### UP CARES OUTREACH

Union Pacific's public safety volunteers conducted more than 15,000 rail safety presentations to more than 600,000 pedestrians, motorists and professional truck drivers across our 23-state network. Our special agents carried out 300 UP CARES education and enforcement operations, which involve observing driver behavior at railroad crossings with state and local police departments. More than 4,000 drivers were educated through these activities.

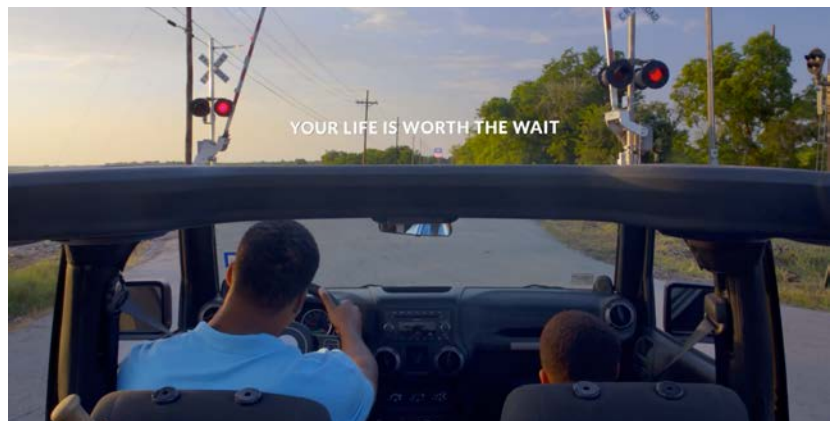
### HIGH SCHOOL PHOTO SAFETY CAMPAIGN

Union Pacific launched its first exclusively [social media-based campaign](#), urging photographers and high school seniors to stop taking photographs on or near train tracks. Through startling videos, the campaign compares the dangers of taking photos on the tracks to posing for senior pictures on a busy highway. Neither are safe locations. The campaign launched in June on social media channels including Facebook, Twitter, Instagram and YouTube. It achieved an audience reach of 170 million during its first five months, and the message was carried by leading photography industry websites. The campaign also was highlighted in a network television news story about the dangers of taking pictures on railroad tracks.



### YOUR LIFE IS WORTH THE WAIT CAMPAIGN

It can be tempting to drive around lowered railroad gates to save a few minutes, but your life is worth the wait. This was the message behind the safety-awareness initiative we launched on [YouTube](#), [Facebook](#), [Twitter](#) and [Instagram](#) in October 2015. The campaign urges drivers and pedestrians to think about their safety first and wait at grade crossings. [Videos](#) depict different scenarios in which a jogger, a young couple and a father-and-son duo are stopped, waiting for a train to pass. When the crossing arms lift, each proceeds safely toward promising futures.



### COMMUNITY EVENT NOTIFICATION

Union Pacific's highest priority is the safety of our employees and the communities we serve. For everyone's safety, Union Pacific strongly encourages event organizers to plan activities that avoid railroad tracks and property. Event organizers should call our Response Communications Center to notify us of events and activities that cross or take place near railroad tracks or property. Visit [Community Event Notification](#) for more information.

# Crossing Assessments in Our Communities

## NEW APPROACH ENHANCES SAFETY AT RAILROAD CROSSINGS

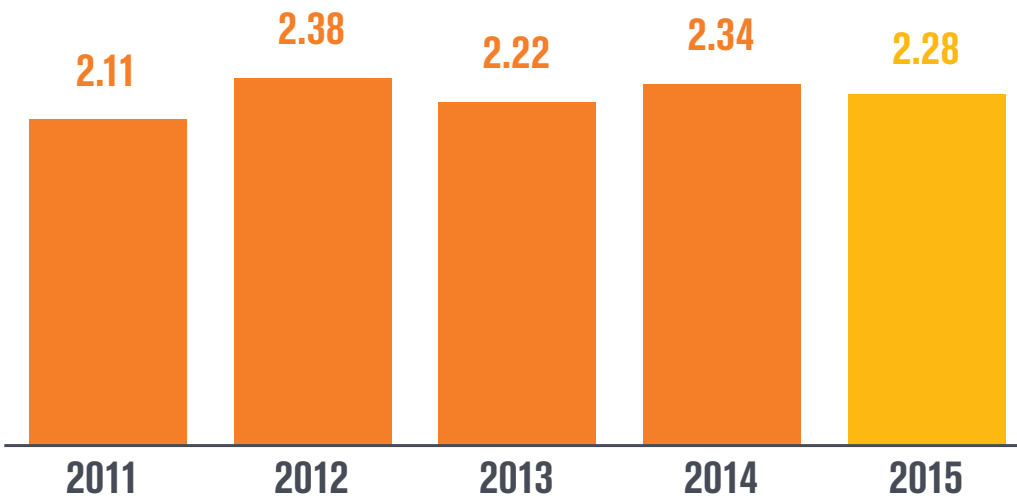
In our ongoing effort to enhance safety at railroad crossings in our communities, Union Pacific launched the Crossing Assessment Program (CAP). While all Union Pacific crossings are safe and meet federal standards, CAP uses data to identify railroad crossings that may benefit from further safety enhancements such as warning signs or road adjustments. Data analysis helps us determine if railroad crossings are candidates for Union Pacific funding to provide safety enhancements or road closures – expenses typically absorbed by states and municipalities. At private crossings, Union Pacific works closely with landowners to find access routes that avoid crossing railroad tracks.

### COLLABORATION ELIMINATES PUBLIC SAFETY RISK

Our CAP data analysis ranked a railroad crossing in Magna, Utah, as a location where a vehicle-train accident could occur. Drivers had to cross three sets of railroad tracks to get through the crossing that connected Rio Tinto Kennecott, a Union Pacific customer, with Salt Lake City and points beyond.

The CAP team further examined the private crossing and worked with representatives from Rio Tinto Kennecott to establish an alternate route. The private crossing was closed and vehicles were diverted to a road that parallels our tracks and onto a nearby overpass. Rio Tinto Kennecott's collaboration enhanced safety in the community and eliminated the risk of a potential accident.

## CROSSING ACCIDENTS Per Million Train Miles



## RESPONSE MANAGEMENT COMMUNICATIONS CENTER

The [Response Management Communications Center \(RMCC\)](#) processes emergency and non-emergency calls from communities across our 23-state system. The RMCC team operates around the clock, responding to accidents, vehicles stuck on railroad tracks, criminal activities and any other concerns occurring on or near our tracks or property. Drivers and pedestrians can report emergencies or rail-related concerns to the RMCC through the phone number posted near railroad crossings, 888-UPRR-COP (877-7267).

## Derailment Prevention

### PERFORMANCE OVERVIEW

Union Pacific's top priority is to operate a safe, efficient and reliable railroad. While we made progress in public and employee safety, our reportable derailment incident rate per million train miles increased 14 percent, from 3.00 in 2014 to 3.42 in 2015. Our derailment prevention team investigates derailments to understand root causes and develop prevention initiatives to reduce accidents.

Union Pacific trains employees to inspect rail lines, equipment and bridges to prevent issues that could cause derailments. We also have more than 4,000 defect detector devices along the tracks, performing 20 million daily evaluations on our equipment and processing comprehensive analyses.

## Customer Safety

Safety doesn't stop at the edge of our property. We also seek to support our customers in their efforts to employ safe practices at their facilities.

Last year, we developed an informational packet with photos to help customers identify and mitigate derailment risks posed by winter weather conditions, including floods, snow, ice and extreme cold, which can take a toll on track conditions. We included tips on how to spot and address potential problems at road and truck crossings, and industry switches, as well as best practices for preventive track maintenance. Additionally, during a period of extreme rain, we used our announcement system to remind customers that track conditions can be impacted by weather.

### KENEFICK SAFETY AWARD WINNER

David Matteson, a West Colton, California, conductor and peer trainer, was the 2015 recipient of Union Pacific's highest safety honor, the J.C. Kenefick Safety Award.

A 13-year railroad veteran, Matteson seized an opportunity to make an impact when he joined the peer trainer group in May 2013 and supported derailment prevention through hands-on training initiatives. His team provided derailment prevention training to more than 150 new hires, enhanced signage and implemented a remote-control locomotive training process. Matteson's efforts helped decrease Los Angeles Service Unit derailments by 74 percent and personal injuries by nearly 90 percent since 2007.

## Employee Safety

### PERFORMANCE OVERVIEW

Union Pacific recorded our best-ever employee safety performance for the second consecutive year. Our 2014 reportable injury rate was 0.98 injuries per 200,000 employee hours worked, and our 2015 reportable injury rate was 0.87 – an 11.2 percent improvement.

### SAFETY STAND DOWNS SHOW COURAGE TO CARE

Union Pacific's dedication to safety is ever present. Our Courage to Care pledge represents our personal commitment to do our jobs with a passion for safety.

Departments and work groups continue to participate in volunteer systemwide "stand-down" meetings, during which normal operations are suspended so employees can speak candidly about unsafe behaviors, finding and eliminating risks, and improving the work environment so everyone returns home safely each day.

During October safety stand-down meetings, employees watched a video, "Courage to Care: It's Our Touchstone," highlighting the evolution of our commitment to safety and risk prevention. After the stand downs, employees were given the opportunity to provide feedback about their experience, so we can continue improving these important safety meetings.



From left are Cameron Scott, executive vice president-Operations; David Matteson, conductor and peer trainer; Maria Matteson; and Chairman Lance Fritz.



## Incorporating Technology

Technology plays a fundamental role in our performance. We work with stakeholders, including suppliers, governmental organizations, employees, engineering researchers and others, as we explore and advance technological improvements.

### TELEMATICS

More than 3,600 company vehicles are outfitted with telematics. This technology uses a telecommunications device to provide feedback that encourages safe driving habits by transmitting real-time information about motorist behavior, including seat belt use, speed, acceleration and deceleration. Telematics reaffirms the importance of maintaining a steady safe speed instead of rapid increases in speed or excessive braking, and is among tools we use to improve our fuel economy.

### IN-CAB CAMERAS

We have more than 2,000 in-cab cameras installed in our locomotives. By the end of 2016, we expect to equip 5,000 locomotives with this technology. Inward-facing cameras complement the locomotive fleet's external-facing cameras, called Track Image Recorders (TIR), that have provided images of track, crossings and signals directly in front of locomotives since 2005. TIR video is used in conjunction with a locomotive's Event Recorder data, which includes train speed, throttle and brake settings, traction power levels, and horn use.

Through the years, TIR and Event Recorder data have validated the professionalism of train crews, and the same results are expected from inward-facing cameras. Proactive performance evaluations of video can increase understanding of crew behaviors, so training and coaching can be improved.

Using video technology to ensure safety, security and situational awareness is expanding in public places, government facilities and businesses. The rail industry reflects this worldwide trend, with cameras used in yardmaster towers, tunnels, shops, office buildings, crew vans, border locations and remote control locomotive crossings.

### LOCOMOTIVE SIMULATORS

Technology allows us to provide locomotive engineers with training in a controlled environment that simulates the experience of operating a locomotive along our tracks. Nearly 40 full-size locomotive simulators are in use systemwide and at our Technical Training Center in Salt Lake City. Locomotive engineers spent 17,000 hours training on the full-size locomotive simulators last year and 20,000 hours in 2014. Instructors in our Technical Training Center began providing real-time remote training from Salt Lake City to locomotive engineers across our system in 2015.

More than 200 Remote Controlled Locomotive (RCL) simulators are used to provide hands-on training for licensed operators. In their daily work, these operators use a small computer console located outside a locomotive to direct its movement in a rail yard. RCL simulator use increased from 5,000 hours in 2014 to more than 7,000 hours in 2015.



*Engineers practice on simulators that replicate the operating experience inside locomotives.*

# Issue in Focus: Positive Train Control

Union Pacific is committed to [implementing Positive Train Control \(PTC\)](#) carefully and thoroughly to enhance the safety of our employees and the communities where we operate trains.

PTC is an advanced system designed to automatically stop a train before certain accidents occur. In particular, PTC is designed to prevent:

- Train-to-train collisions
- Derailments caused by excessive train speed
- Train movements through misaligned track switches
- Unauthorized train entry into work zones

PTC will not avert vehicle-train accidents at railroad crossings, stop trains when people are walking on the track illegally, or prevent incidents due to railroad track or equipment malfunctions.

Through 2015, we invested just under \$2 billion in PTC. Our current estimate for PTC's total cost is about \$2.9 billion.

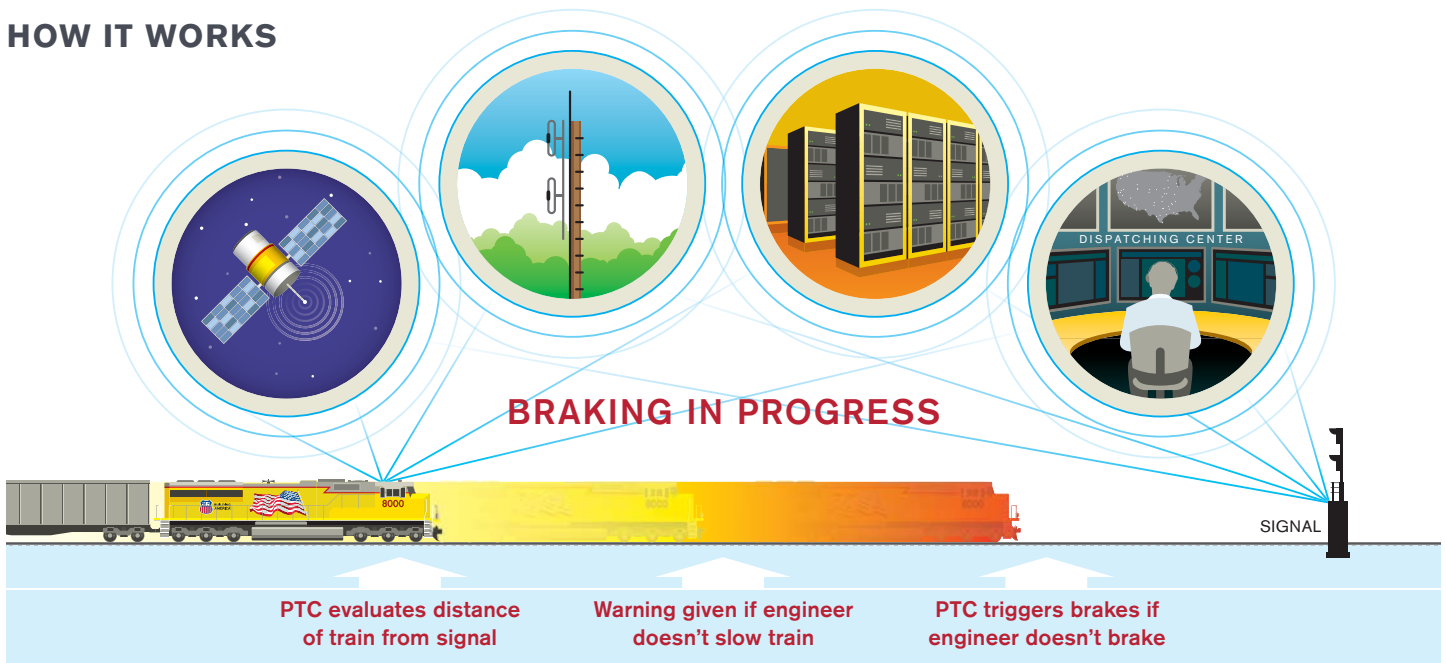
Developing and implementing PTC is a multi-part process requiring a systemwide approach and comprehensive testing once all the technologies are fully developed and installed.

PTC requires integrating thousands of components across the telecommunications spectrum, such as GPS, Wi-Fi, radios, cellular technology, antennae, base stations and first-of-its-kind software that decides when to slow or stop a train – across Union Pacific's network. PTC must be interoperable, meaning that passenger, commuter and freight trains are required to seamlessly communicate across all railroad systems.

When fully deployed, the nationwide PTC system will be able to accurately determine a train's location, direction and speed via the following process:

- An onboard computer system receives and analyzes track data from wayside locations and base-station radios along the planned route.
- This provides the locomotive engineer with advance warning of movement authority limits, speed limits and track conditions ahead, giving the engineer time to react and bring the train to a safe speed or controlled stop.
- If corrective action is not detected within the warning period, PTC automatically applies the train brakes and brings it to a controlled stop without the engineer's assistance.

## HOW IT WORKS



## Innovation

### LONG RAIL IS A GAME CHANGER

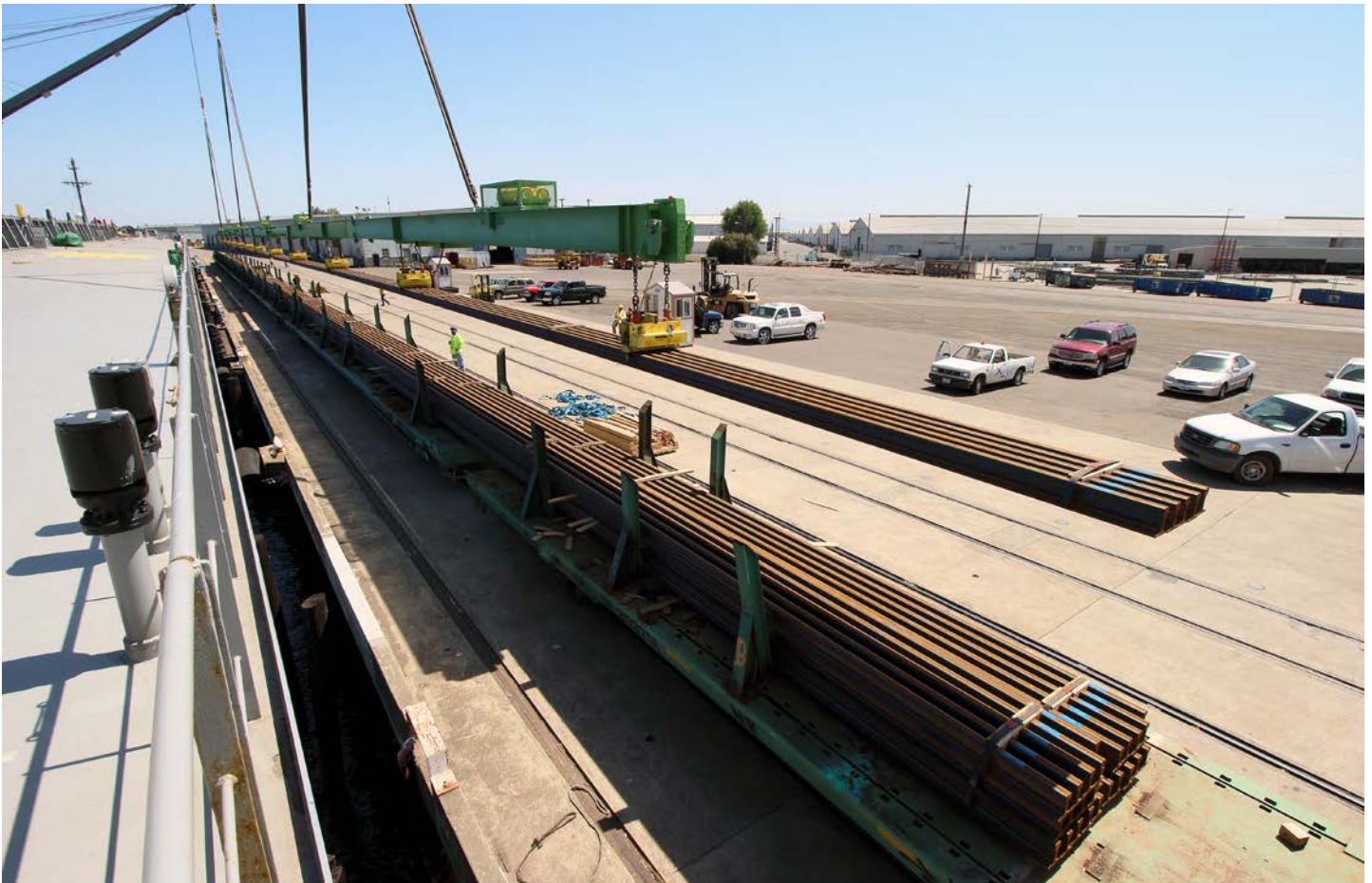
Union Pacific is the rail industry's first company to import long rail from Japan to its custom facility at the Port of Stockton, California, setting a new standard for rail reliability.

Full appreciation of the milestone requires a historical perspective. America's first railroads were constructed by bolting together 16-foot-long sections of steel rail. The bolted areas were structurally the weakest part of the rail, having the potential to break and cause a derailment. By the 1940s, steel companies began manufacturing longer sections fused together in welding plants to create quarter-mile-length segments. A great advancement over bolted rail, the welds strengthened the track structure.

By the 1980s, head-hardened rail was developed by cooling steel at a rate that provided additional strength. The new standard section became 80 feet, requiring 17 welds to create a quarter-mile length. Longer rail sections continued to be developed but were not as strong.

During this time, Union Pacific, Nippon Steel of Japan and Sumitomo Metal Corporation began discussing a revolutionary idea – manufacturing and shipping high-strength, head-hardened continuous-cast rail in 480-foot-long sections. With access to long rail, only two welds are needed to create quarter-mile lengths. This new system reduces welds by 88 percent, creating a more reliable network.

Implementation required innovation in every aspect of the process. Sumitomo designed "Pacific Spike," the first ship in the world serving as a long rail shuttle for Union Pacific. The Port of Stockton's 25-acre, \$18 million welding facility is equipped with a special overhead crane to lift the rail. It also features three tracks, two bridges, custom storage and welding facilities designed to accommodate the additional rail length.



*Union Pacific is the first railroad to implement 480-foot sections of long rail that improve reliability.*

## NEW WELDING TECHNOLOGY

Thermite head repair welds are a new technology that lowers the risk of rail defects in our track repair process. Specially trained welding teams use thermite head repair welds to fix internal flaws discovered by detector cars, which perform electronic track inspections. Instead of replacing an entire section of rail, welding teams grind down the rail head, remove the defect and leave the remainder of the rail intact. The process requires one weld instead of two, reducing installation time and eliminating alignment issues. Thermite head repair welds are an example of continuous efforts to make Union Pacific's rail lines stronger and safer.



*Internal rail flaws are repaired without removing an entire section of rail with thermite head repair welding technology. This lowers the risk of rail defects in the track repair process.*

## DETECTOR CARS

Union Pacific has two self-propelled track geometry inspection vehicles capable of performing a variety of electronic track inspections at speeds of up to 70 mph. A three-person crew operates the 90-foot-long vehicle and performs inspections using 11 computer systems that gather data from lasers measuring track surface, rail wear and tunnel elements. On-board computers use GPS systems to accurately record and pinpoint exact repair locations. Track maintenance crews follow the inspection vehicle and make repairs as needed. The real-time data also is used to schedule track improvement projects. The two new vehicles join 22 Union Pacific-owned ultrasonic rail-flaw detection vehicles designed to “look” inside rails to find flaws undetectable by the human eye.

## DRONE OPPORTUNITIES

The Federal Aviation Administration granted Union Pacific an exemption to use drones for aerial data collection, bringing us closer to enhancing emergency response efforts at derailments. Drones also could be used to obtain aerial images of rail infrastructure and perform bridge inspections. We are finalizing our drone deployment process, including preparing qualified pilots.

## ULTRASONIC WHEEL-DEFECT DETECTION

Union Pacific is an industry leader in developing and testing new technology that helps improve mechanical inspections. Wayside detection systems automate inspections and look for defects in ways humans cannot, including analyzing wheels for internal cracks or flaws. These inspections are especially critical for cars carrying heavy loads that exert greater stress on wheels.

Our ultrasonic wheel-defect detection house in North Platte, Nebraska, is the world's first facility that uses ultrasound technology to inspect wheels on a moving train. Since this technology was implemented five years ago, we have identified and removed about 75 defective wheels annually that otherwise would have gone undetected.



*Ultrasonic wheel-defect detection identifies internal cracks or defects inside wheels on moving trains and reduces derailments caused by broken wheels.*

## Hazardous Materials and Chemical Risk Reductions

We take seriously our responsibility to safely ship all freight. Our goal is to deliver every car safely while being prepared to respond in the unlikely event of an accident. Union Pacific's Environmental Management Group includes a [Hazardous Materials Management Group](#), consisting of highly trained experts in hazardous material transportation safety, securement and response. Union Pacific meets stringent certification requirements under the American Chemistry Council's Responsible Care Management System program, demonstrating our commitment to safely handling hazardous materials.

**7,000** public emergency responders trained.

**5,000** customer tank car inspections conducted.

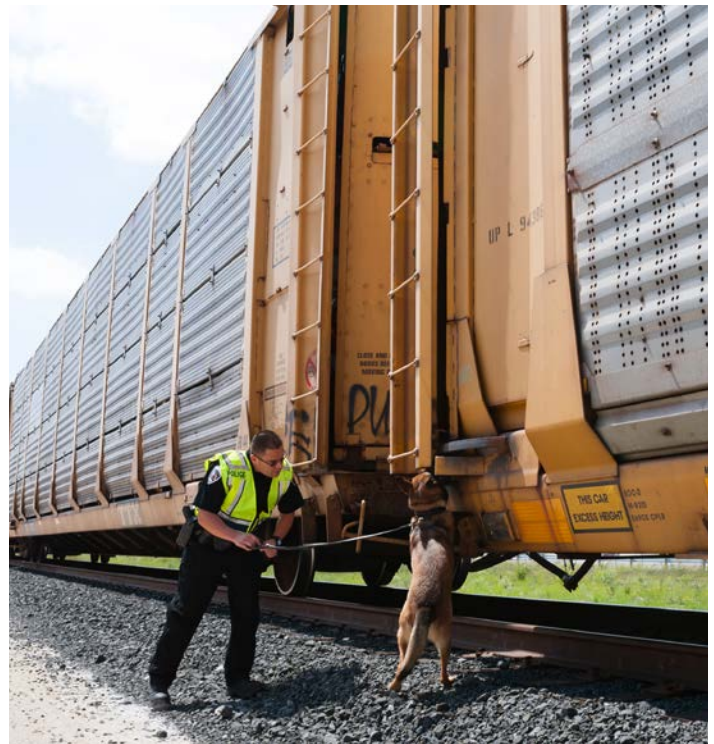
**3,000** first responders invited to use the AskRail application since its introduction in 2014. AskRail allows first responders to use a tank car's identification number to determine the car's contents.

**200** firefighters sponsored to attend a specialized crude-by-rail training program, bringing the total to more than 500 since the program's inception in 2004.

## Safety through Security

The Union Pacific Police Department meets the most stringent law enforcement standards and is certified by the Commission on Accreditation for Law Enforcement Agencies, considered the gold standard in public safety accreditation.

Our highly trained special agents use security monitoring technology that provides 24-hour intruder detection capabilities to protect critical infrastructure. Union Pacific also coordinates security efforts with U.S. Customs and Border Protection (CBP), the U.S. Coast Guard, the Federal Bureau of Investigation, the Central Intelligence Agency, the Department of Homeland Security, the Transportation Security Administration and local law enforcement. Union Pacific was the first U.S. railroad named a partner in the Customs-Trade Partnership Against Terrorism, a CBP program designed to develop, enhance and maintain security processes throughout the global supply chain.



*Special Agent Raymundo Velarde and his K-9 partner, Bizi, inspect a train in San Antonio.*



*The South St. Paul Mayor's Youth Task Force highlights rail safety at the city's summer parade with a float carrying the remains of a pick-up truck that collided with a freight train. The task force received a \$5,000 Union Pacific grant to organize a series of initiatives promoting safety near railroad tracks.*

## Strengthening Communities

Union Pacific strengthens communities where we operate by providing good jobs, partnering with local governments, and volunteering time and resources to help organizations that help others. Our supplier diversity program also creates opportunities for hundreds of minority- and women-owned businesses across the country.

### **HIGHLIGHTS, CHALLENGES AND OPPORTUNITIES**

Railroads have played a critical role in communities throughout American history. We had unique opportunities in 2015 to raise awareness of that history and those who took part in it. Union Pacific was honored to join President Barack Obama in the dedication of the Pullman Historic District located near Chicago, as a national monument. Union Pacific also sponsored events highlighting the 150th anniversary of the arrival of Chinese workers who played key roles in constructing the Central Pacific Railroad. They worked through the Sierra mountains on to Promontory, Utah, culminating efforts with the driving of the Golden Spike.

Union Pacific and the communities we serve have grown together, and our trains continue delivering goods people use every day, such as clothing, electronics, and lumber to build homes. Supporting America's growing freight needs requires us to serve businesses that count on rail 24/7. Federal law requires locomotive engineers to sound train horns 15 to 20 seconds before entering public railroad crossings equipped with lights and gates or the X-shaped railroad crossing signs. This increases safety by alerting drivers and pedestrians of approaching trains, but can affect homes and businesses near railroad tracks. Train horns can be loud distractions during the day and interrupt sleep at night.

The Federal Railroad Administration allows cities to establish [quiet zones](#), areas in which engineers are not required to routinely sound train horns. Even though Union Pacific believes quiet zones compromise safety, we work with communities by providing perspective on safety measures needed to establish quiet zones. Once quiet zones are implemented, engineers only sound train horns for emergencies or safety concerns, such as people walking near the tracks.

## 2015 State-by-State Economic Impact

State	Employees*	Payroll**	Route Miles	Capital Investment**	In-State Purchases**
Arizona	1,234	116.6	691	93.7	24.6
Arkansas	2,823	250.7	1,325	169.5	41.0
California	4,783	462.8	3,292	278.0	239.1
Colorado	1,208	124.9	1,503	67.1	161.0
Idaho	886	88.5	848	60.7	17.4
Illinois	4,205	384.3	2,318	173.2	1,600.0
Iowa	1,695	154.0	1,386	128.4	96.2
Kansas	1,347	146.3	2,203	119.5	231.8
Louisiana	1,187	127.9	1,152	140.7	19.5
Minnesota	447	48.5	647	54.7	211.0
Missouri	2,531	237.7	1,537	92.3	462.6
Montana	13	1.5	125	1.0	3.3
Nebraska	7,905	1,045.6	1,067	376.8	219.4
Nevada	520	47.2	1,193	60.1	21.1
New Mexico	527	47.7	618	33.9	1.5
Oklahoma	354	41.8	1,173	41.1	163.3
Oregon	1,632	150.4	1,073	141.4	197.6
Tennessee	46	4.4	14	0.1	52.1
Texas	7,700	765.6	6,304	800.3	1,800.0
Utah	1,247	132.4	1,247	78.2	290.4
Washington	345	32.0	532	4.1	130.0
Wisconsin	430	46.4	930	24.9	66.5
Wyoming	1,172	103.4	874	88.4	75.5
<b>Total</b>	<b>44,338</b>	<b>4,561.0</b>	<b>32,050</b>	<b>3,028.0</b>	<b>6,125.0</b>

\*Fourth quarter 2015 average

\*\*In millions

## Providing Good Jobs

We are proud to be a good employer in the communities where we operate, offering [competitive benefits](#) and growth opportunities.

### COMMITMENT TO MILITARY VETERANS

Union Pacific again was recognized as a Military Friendly Employer, finishing sixth out of 100 companies designated by G.I. Jobs, a military recruiting publication. G.I. Jobs assessed our military programs and policies, including military recruiting efforts, percentage of new hires with prior military service, retention programs for veterans, and company policies on National Guard and reserve service.

We serve on the U.S. Chamber of Commerce Foundation's Veteran Employment Advisory Council. The council is committed to hiring veterans and military spouses; establishing best practices for veteran employment; reporting measures (job opportunities, interviews and placements); providing mentors to help transitioning service members and military spouses, and enlisting the commitment of American businesses to do the same.

Union Pacific also was recognized as a finalist for the U.S. Chamber of Commerce Foundation's Lee Anderson Veteran and Military Spouse Employment Award for overall excellence in hiring and retaining veterans, transitioning service members and military spouses.



Brandon Thomas, foreman

### RECRUITING DIVERSITY

Union Pacific wants to bolster employee diversity within our workforce. Research shows that diversity fosters creativity and innovation. Union Pacific has created a thought leadership team including employees from various departments who advise on strategies to acquire talented people who represent the communities in which we operate.

### RECRUITING STEM GRADUATES

Our Information Technologies Department launched a year-round summer high school internship pilot program, and our college recruiting teams targeted Science, Technology, Engineering and Mathematics (STEM) talent at 18 core universities. In addition, we actively recruit STEM students at 20 other colleges and universities for our IT and Operating departments.

Union Pacific also sponsored K-12 student experiences that promote an interest in STEM careers. Examples include:

- **Code Crush.** An annual immersion experience for middle and high school girls at the University of Nebraska at Omaha's College of Information Science and Technology. The program is designed to introduce girls to information technology in a secure, friendly and engaging environment.
- **Girls on Board.** An annual workshop that teaches middle school girls about non-traditional careers and celebrates women in STEM professions.

We are continually evolving and refining our strategy to attract and retain the best STEM talent.

**947** Number of veterans hired in 2015.

**24%** Percentage of 2015 hires who are veterans.

**52** Number of disabled veterans hired in 2015.

**18%** Percentage of active employees who are veterans.

### EMPLOYEE REFERRALS

The success of our company – past, present and future – rests on the shoulders of our people.

Our employees are our best recruiters, and Union Pacific's employee referral program supports their efforts. Great people know other great people. Our employees connect us with their friends, family, neighbors and members of their faith communities.



## Connecting with Communities

### THE UNION PACIFIC FOUNDATION AND COMMUNITY OUTREACH

#### **Pullman Historic District, Illinois**

President Barack Obama signed the Pullman National Monument proclamation in February 2015. Built in the 1880s as an industrial town for the Pullman Company, the historic district highlights both the promise of American opportunity and the struggles for civil rights and fair labor standards. The Union Pacific Foundation's \$1 million donation helped jumpstart critical projects at the district's new park. Highlights include a visitor center, educational and experiential exhibits, and programming in the Administrative Clock Tower Building designed to engage visitors on the importance of Pullman's role in American history.



*President Barack Obama signs the Pullman National Monument proclamation at a ceremony in Chicago.*

#### **150th Anniversary of Chinese Workers Building the Transcontinental Railroad, California**

In an effort to gather and keep their stories alive, 350 descendants of Chinese railroad workers came together in May 2015 to celebrate the 150th anniversary of the Chinese contributions to the Transcontinental Railroad. Union Pacific was among sponsors of the event. We were privileged to run a special scenic excursion train to recognize the Chinese contributions. The seven-hour journey between Oakland, California, and Reno, Nevada, aboard Union Pacific heritage passenger cars featured docents telling stories about Chinese workers' achievements.



*Descendants of Chinese railroad workers celebrate the 150th anniversary of the Chinese contributions to the Transcontinental Railroad.*

**World War II Museum  
 Train Car Experience, Louisiana**

The National World War II Museum’s Train Car Experience exhibit offers accounts of trains carrying servicemen to war. Visitors begin their experience at the rail car, launching their journey in the same way as tens of thousands of American soldiers headed to combat once did. The true-to-life rail experience provides detailed personal accounts of the brutal four-year war that changed the world forever. During the war, U.S. railroads, including Union Pacific, moved 90 percent of the nation’s military freight and 97 percent of its military passengers. We are honored to assist in creating this touching exhibit with a \$250,000 gift from the Union Pacific Foundation.



*The National WWII Museum’s Train Car Experience is housed in the Louisiana Memorial Pavilion.*

**EMPLOYEE MATCHING GIFTS MAXIMUM CONTRIBUTION INCREASED**

Union Pacific is committed to improving the quality of life in the communities we serve and supporting our employees when they donate personal funds or volunteer with local nonprofit organizations.

We offer programs to enhance our employees’ charitable contributions and volunteerism. Our MoneyPLUS Program supports and extends employees’ financial contributions to qualified 501(c)(3) public charities by providing matching contributions to that charity. Our TimePLUS Program allows employees who volunteer their time to apply for a \$250 gift from the company to support the public charity with which they volunteer. The annual company match per employee was raised from \$12,000 to \$25,000 in 2015. Union Pacific matched \$1.8 million in 2015, maximizing our employees’ contributions in their communities.

# Keeping Communities Safe

## THE HEAT IS ON IN CALIFORNIA

What used to be a designated “Fire Season” in California now applies year-round as the state recently experienced one of the worst droughts in its history.

With more than 3,200 miles of track in California, Union Pacific works with hundreds of professional and volunteer fire departments to prevent fires along the railroad. We also created a 70-foot-wide firebreak centered on our main track between Rocklin and Soda Springs. This structure protects our operations and a national forest by reducing the probability that an errant spark could ignite the tinder-dry grass.

Tree trimming, removing pine needles and debris, and even using goats to eliminate dry vegetation along our rights of way has decreased the potential for fires. And when hot work – rail grinding or welding – needs to be done, we enclose the work area with a fireproof tent. When the project is completed, employees and contractors remain for at least one hour to ensure a safe environment.



Spark shields are in place during “hot work.”

## BRIDGE SAFETY – STEEL GIANTS PROMISE SAFE PASSAGE

Union Pacific bridges are safe for the freight traffic they carry, as well as motorists and pedestrians.

Our nearly 600-member team of bridge maintenance and inspection professionals works every day to maintain roughly 18,000 bridges across communities in our 32,000-mile network. Bridge inspectors carefully examine each bridge component, looking for corrosion or cracks in trusses, decking and other components. Union Pacific bridges are inspected four times more often than federal highway bridges.

Inspections begin at the base of the bridge, where a visual check is conducted to identify any telltale signs of defects. Inspectors then work their way up and across the bridge, looking for structural issues. The track itself also is evaluated. Inspectors use a gauge to measure every fourth crosstie, ensuring proper track alignment.

Reaching every nook and cranny can be challenging, especially on bridges that span rivers or deep ravines, but no area is ignored. Inspectors use a truck-mounted articulated basket crane for better access during “snooper” inspections.

**RUST** is normal and forms on the surface of bridges when they are exposed to oxygen and water over long periods of time.

### SNOOPER INSPECTIONS

- Access above and below the bridge’s deck
- Detailed examination
- Scan for corrosion or cracks
- Identify potential defects in beams, trusses or decking
- Proactive repairs

## Supplier Diversity

Our 30-plus year [supplier diversity program](#) was the first among the largest U.S. railroads. It is evident in purchases made across our organization, including fuel, engineering services, infrastructure maintenance, construction materials, rolling stock maintenance and technology.

Union Pacific spent \$423 million last year with minority- and women-owned businesses, purchasing goods or services from approximately 600 diverse suppliers in 39 states, including all 23 states in which we operate. Our spending with diverse suppliers grew an average of 5.7 percent annually from 2008 to 2015. About 43 percent of Union Pacific's critical suppliers reported purchasing goods or services from diverse suppliers, demonstrating their support for our diversity initiative, a 45 percent growth over 2014.

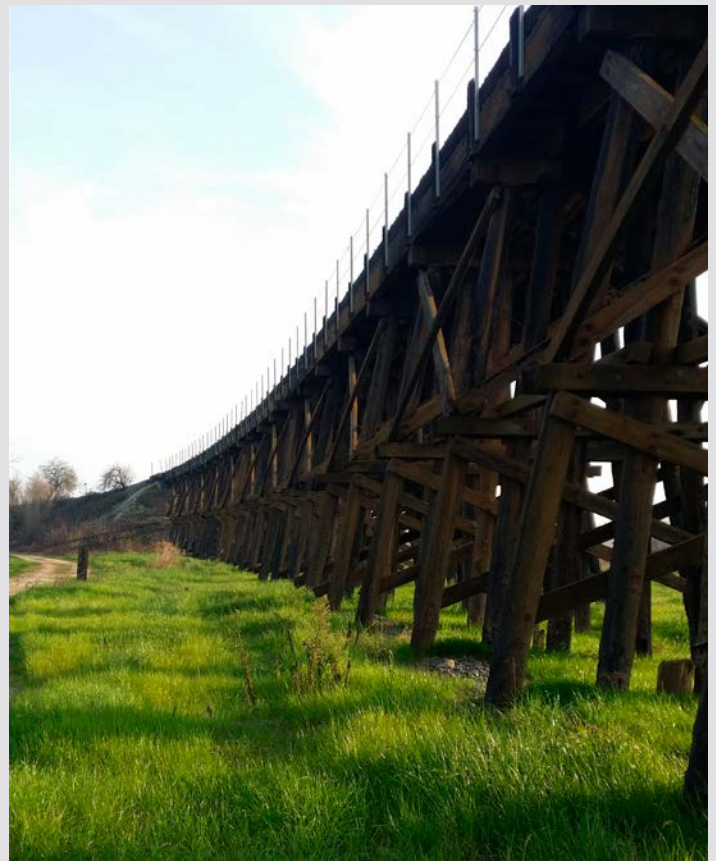
### SUPPLIER CODE OF CONDUCT

Union Pacific is committed to high standards of ethical business conduct. As a condition of doing business with Union Pacific, all suppliers must fully comply with all federal, state and local laws, rules, regulations, orders, codes, and ordinances as outlined in their contract with Union Pacific, as well as [Union Pacific's Supplier Code of Conduct](#). Union Pacific requires suppliers to report any violations of this code by calling our values line. Suppliers also are bound to comply with the U.S. federal government's Foreign Corrupt Practices Act.

### SUPPLIER DIVERSITY SPOTLIGHT

After a successful 20-year career in heavy highway construction, Roger Tate founded Allen Engineering in 2001. The company added a rail division in 2006, and Union Pacific's Supply Department guided Tate through the process of registering to become a minority-owned supplier for the company.

After completing several small projects, Allen Engineering began helping Union Pacific with major efforts, from building bridges to responding to washouts and other emergencies. Tate's Railroad Division has flourished with Union Pacific, growing by 1,200 percent in 2014 and 64 percent in 2015. The company now has nearly 100 employees in its Rail Division. Allen Engineering expects to open an office in Houston soon.



*Allen Engineering bridge replacement project in Fresno, California. The company grew after registering as one of Union Pacific's minority-owned suppliers.*



Sharron Jourdan, electrician

## Engaging Employees

Employees are at the center of everything we do at Union Pacific. Our highly skilled workforce allows us to fulfill our vision of Building America. That is why we invest significant resources to ensure employees get the training and support they need to succeed.

### **HIGHLIGHTS, CHALLENGES AND OPPORTUNITIES**

Union Pacific strives to provide employees with fulfilling careers and professional growth. We offer comprehensive benefits and focus on training and development opportunities, allowing employees to improve existing skills and learn new ones.

Union Pacific recruits talented employees who have a passion for performance and want to deliver quality results. A diverse workforce is critical to our business and innovative ideas that lead to future success. Although we are making great efforts to recruit, retain and advance the careers of people from all walks of life, we still have work to do. We will continue finding ways to improve and strengthen our performance in this area and reach our goal of having a workforce that reflects the diverse communities we serve.

We continue efforts to recruit women to Science, Technology, Engineering and Mathematics (STEM) careers at Union Pacific. That is why we support programs such as the University of Nebraska at Omaha's Women in IT Initiative and its Code Crush experience that introduces young women to information technology in a secure, friendly and engaging environment.

# Benefits

## OVERVIEW

Union Pacific offers a comprehensive [benefits program](#) to our employees, including medical insurance, educational assistance, pension and a 401(k). These benefits vary based on whether an employee is non-union or part of a collective bargaining agreement. Union Pacific deeply cares about our employees' health and well-being. New resources offered to promote wellness and work-life balance are outlined below.



Ruth Nan, signal design engineer

## CARE ADVANTAGE

Union Pacific recognizes employees may need help at home to support work schedules required to run the railroad's around-the-clock operations. The Bright Horizons Care Advantage™ resource provides access to some of the largest self-select online caregiver databases. Featured services supporting better work-life balance include:

- Center-based child care
- Pet care
- Babysitters and nannies
- Elder care
- Housekeeping
- Tutoring and homework help



POPULATION (TOTAL COMPANY)	
<b>44,500</b> (4Q 2015 average)	
<b>Traditionalists</b> (born before 1946)	<1%
<b>Baby Boomers</b> (born 1946-1964)	30%
<b>Generation X</b> (born 1965-1981)	50%
<b>Millennial</b> (born after 1981)	19%
SENIOR MANAGEMENT	
<b>Female</b>	19%
<b>Male</b>	81%
<b>Asian</b>	1%
<b>Black</b>	7%
<b>Caucasian</b>	85%
<b>Hispanic</b>	6%
<b>Native American</b>	1%

## Well-Being

Union Pacific's wellness program, "Take Charge. Feel Better. Live More," provides employees with resources to address mental and physical health concerns.

Union Pacific Health and Medical Services help employees manage a variety of wellness related issues. Our System Health Injury Protocol (SHIP II) assists employees who may be at risk for injury because of low fitness levels. The program gives employees access to personal training sessions, as well as consultations with a nutritionist, to help them achieve their fitness goals. For employees who sustain an injury, the company's Return to Work (RTW) program enables them to perform productive, meaningful work activities within their physical capabilities as defined by their physicians. Additionally, Union Pacific provides education and assistance for issues including substance abuse, alertness and stress.

Other wellness programs available to employees include:

- Personalized Health Coaching helps employees and spouses with health risks including stress, depression, smoking, diabetes, nutrition education and weight management.
- Employee Assistance Program offers all employees and their families counseling and referral services for personal or work-related problems.
- Annual Wellness Incentives are available to non-union employees and their spouses for completing a wellness assessment and an annual physical.

Additional examples can be found on our Building America web pages.

### WELLNESS CHALLENGE

To increase participation in wellness programs and employee health, Union Pacific's Worksite Wellness Challenge recognizes individual work units that have adopted world-class wellness programs. Launched in 2013, the challenge evaluates and scores all work units on their wellness and safety education objectives. Participating worksites receive points based on engagement levels, resulting in designations to match the teams' efforts. In 2015, 50 out of 53 work units received platinum, gold, silver or bronze recognition. On average, engagement and participation grew 20 percent from 2014.

### SYSTEM HEALTH FACILITY PROGRAM EXPANDED

The partnership with Healthy Contributions grew to more than 5,000 gym facilities available to employees through Union Pacific's industry-leading System Health Facility program. The new network includes industry fitness leaders such as Gold's Gym and Anytime Fitness, as well as thousands of regional and local gyms. This benefit encourages Union Pacific employees to pursue a wellness path by taking charge of their health and fitness.



### PEER SUPPORT PROGRAM

The Union Pacific Peer Support Program helps employees who experience a critical incident on the job or in their personal lives. Union Pacific employee volunteers are trained to help fellow colleagues deal with human and emotional impacts of incidents by working through the recovery process and offering confidential, emotional support. If needed, Peer Support also bridges to professional resources. The National Employee Assistance Helpline is available to employees 24 hours a day, seven days a week.

### SUICIDE PREVENTION

Suicide is a difficult topic and it can be a particularly difficult to discuss in the workplace. To address the problem, Union Pacific sponsored a company-wide suicide awareness rollout on world-wide Suicide Prevention Day. Volunteers met fellow employees as they arrived to or left work, handing out wallet-size cards about suicide and giving employees a key chain with the message, "Stay Connected." Collectively, the volunteers reached 10,000 employees in a single day. Such peer-to-peer programs are vital to suicide prevention because colleagues have strong credibility with their co-workers. In addition to the direct employee outreach, the Union Pacific Foundation provided a \$250,000 grant to the National Action Alliance for Suicide Prevention, a public-private partnership working to make suicide prevention a national priority.

## Diversity and Inclusion

Union Pacific is committed to diversity and providing an inclusive work environment where people can be their best. Drawing upon the expertise and experiences of people from all backgrounds improves Union Pacific's decision making, problem solving and strategic thinking. Recruiting, leadership development and mentoring initiatives are helping build and maintain a diverse team.

### DIVERSITY POLICY

A discrimination-free workplace and fair treatment are fundamental rights of all Union Pacific employees. We strive for a work environment in which differences are respected and valued. This is foundational for encouraging all employees to contribute to their fullest potential.

Union Pacific is committed to providing a work environment free of offensive behavior directed at a person's race, color, national origin, religion, gender, sexual orientation, age, gender identity, veteran status or disability. This includes offensive behavior directed at employees, customers and visitors to company facilities, as well as other people employees may come in contact with during the normal course of work.

To learn more about diversity at Union Pacific see our [Affirming Diversity webpage](#).

### EMPLOYEE RESOURCE GROUPS

Union Pacific's Employee Resource Groups (ERGs) are networks of employees that help Union Pacific nurture a diverse workplace where all employees can do their best work. Each ERG has an executive sponsor who ensures these groups can direct management's attention to issues of particular concern. ERGs not only support their own members, but also provide educational experiences for all employees and service to the communities in which Union Pacific operates.

About 3,000 employees companywide are involved in one or more Employee Resource Groups, which include:

- Asian Employee Resource Organization (AERO)
- Black Employee Network (BEN)
- BRIDGES: LGBT Employee Network
- Council of Native American Heritage (CONAH)
- Latino Employee Network (LEN)
- LEAD: A Women's Initiative – Lead Educate Achieve and Develop
- UP Ties: Emerging Professionals Network
- UPVETS

Additional information on each ERG can be found on the online version of our [Building America Report](#).

### LATINO EMPLOYEE NETWORK CELEBRATES GROWTH AND SUCCESS

The Latino Employee Network (LEN) showcased growth and success at its annual conference in San Antonio. More than 200 Union Pacific employees attended the largest conference in LEN's history, which offered networking opportunities, discussions with Union Pacific executives and professional development sessions. LEN has more than 600 members and continues to grow.

*The Sunset Service Unit, which stretches from Dalhart, Texas, to Yuma, Arizona, received LEN's Field Chapter of the Year Award. The new chapter recruited 150 members in 2015.*





# Training and Career Development

## CORECONNECT

Union Pacific supports career paths through a talent management initiative called **CoreConnect**. **CoreConnect** includes a defined set of competencies focusing on [how work is done](#), as well as goals and results. Through the core competencies, we create a culture of performance and growth that supports our vision, mission and values. Core competencies focus on how employees:

- Build relationships and influence others
- Confront problems with courage
- Embrace change
- Act strategically
- Handle adversity
- Lead teams
- Make effective decisions
- Focus on customers



## TRAINING AND CAREER DEVELOPMENT OPPORTUNITIES

Union Pacific offers training and career development opportunities to our employees, helping us cultivate a high-quality workforce capable of the challenging work the rail industry demands. Training also helps keep our employees safe on the job. In 2015, Union Pacific conducted 2.1 million hours of safety-related training, an increase from 1.9 million hours in 2014.

Some of Union Pacific's training and career development programs include:

- **New Employee Onboarding Program:** Company and department orientations are a primary focus for new employees. Along with communication and industry-specific training, we provide an interactive electronic-learning experience and an instructor-led orientation program.
- **Skill Development:** We offer a variety of technical, communication, safety and environmental training.
- **Managerial and Leadership Training:** Union Pacific supports individual employee needs through training focused on all aspects of management and leadership. These courses help employees grow and develop, while encouraging employee engagement throughout the company.
- **Transitioning Managers:** Union Pacific is dedicated to preparing degreed and non-degreed employees for key transition points in their careers. This includes a robust program to provide newly promoted managers with the tools they need to lead a team for the first time.
- **Emerging Leaders:** We seek to maintain a strong pipeline of leaders. This means developing individuals who can move into higher levels of organizational leadership. We offer a series of leadership programs that vary from a three-day course to 10 months of intensive training.
- **Transportation Operations Training:** Operational excellence is critical for Union Pacific as we seek to grow our business through superior service.
- **Field Management Trainee and Operations Management Trainee Programs:** Hands-on opportunities to manage transportation operations for employees experienced in the field and employees who are new to operations.

2015 TRAINING	NONAGREEMENT	AGREEMENT
<b>Total Training Hours</b>	548,637	4,070,271
<b>Number of Employees</b>	6,968	40,422
<b>Average Hours/Employee</b>	79	101

RETENTION RATE	OPERATIONS MANAGEMENT TRAINEE	FIELD MANAGEMENT TRAINEE
<b>2011</b>	57%	70%
<b>2012</b>	56%	68%
<b>2013</b>	65%	77%
<b>2014</b>	71%	90%
<b>2015</b>	94%	88%

## EDUCATIONAL ASSISTANCE PROGRAM

Union Pacific encourages employee growth and higher education through our Educational Assistance Program, which helps employees attending colleges or universities. We reimburse employees' tuition costs up to a maximum of \$5,250 per calendar year, less any grants, scholarships or other monetary assistance that does not require repayment.

## MANAGING AGREEMENT PROFESSIONALS FOR SUCCESS

In 2015, a team evaluated Union Pacific's discipline policy and programs and developed recommendations. The team's evaluation included research, discipline and testing data analysis, manager and agreement professional surveys, a focus group with labor representatives and benchmarking other companies. The effort resulted in a new program called Managing Agreement Professionals for Success (MAPS). MAPS provides a single, consistent, systemwide standard for addressing rules violations, while reinforcing employees' safe conduct through learning opportunities such as coaching, conferencing and training.

## UP WAY

The UP Way is an integral part of our culture at Union Pacific. It challenges all employees to improve safety, service and productivity through tools and processes that standardize work, solve problems at their root cause and eliminate variability and waste.

Strong employee engagement is a crucial part of the UP Way. When our employees actively take part in our culture of continuous improvement, we can achieve world-class safety, service excellence and increased productivity. UP Way outcomes include:

- A safer and better work environment
- Employees who design and continuously improve their work
- Consistent and predictable work processes
- Better understanding of expectations and processes
- Improved working relationships
- Sustained process improvements

## ROSEVILLE CAR DEPARTMENT REACHES 1 MILLION HOURS WITHOUT AN INJURY

Rail car maintenance employees in the Roseville, California, area used UP Way initiatives to work more than 1 million hours injury free. Safe, efficient car repairs are vital to Union Pacific's operations and the team was determined find ways to keep each other safe.

Employees used UP Way tools to standardize training and promote a "stop the line" process to mitigate risks. They also completed several projects to implement additional safety initiatives, including:

- Providing weekly safety facts.
- Sharing driving and personal protection equipment tips.
- Offering inclement weather updates to minimize safety hazards and maintain their safety record.

The team is proud of its major milestone and continues looking for ways to ensure everyone goes home safely.

## Labor Agreements

Approximately 85 percent of our 44,500 full-time-equivalent employees are represented by 15 major rail unions. On Jan. 1, 2015, current labor agreements became subject to modification, and we began the latest round of negotiations with unions. Existing agreements remain in effect until new agreements are reached or the Railway Labor Act's procedures (which include mediation, cooling-off periods and the possibility of Presidential Emergency Board and congressional intervention) are exhausted. Contract negotiations historically continue for an extended period of time, and we rarely experience work stoppages while negotiations are pending.

## AUXILIARY WORK AND TRAINING STATUS

Demand for train and yard service employees declined because of reduced business levels. The reductions caused some employees to be furloughed or placed on Auxiliary Work and Training Status (AWTS) boards.

Approximately 65 percent of all train and yard employees were eligible to be covered under AWTS agreements. About 30 percent of the furloughed employees were on AWTS boards in 2015.

AWTS agreements provide up to eight work or training days per month. Employees continue to receive full health care benefits and service months continue to be earned for purposes of Railroad Retirement. AWTS helps employees remain current with required training and enables a faster return to full-time status when business demand increases. This helps Union Pacific deliver when its customers increase their freight needs.



*Photo taken near Walong, California*

## Preserving the Environment

A sustainable environment is a critical foundation to a strong company, country and economy. Preserving the environment is the right thing to do and makes business sense.

We provide customers a transportation option that is more fuel efficient and less carbon intensive than long-haul trucks, allowing businesses to ship freight in a more environmentally friendly manner. We are focused on improving processes, investing in technology and training employees to find the most innovative ways to better our business while protecting the environment for generations to come.

### HIGHLIGHTS, CHALLENGES AND OPPORTUNITIES

Railroads are one of the most fuel efficient transportation modes. We measure fuel efficiency by the number of tons moved per mile on one gallon of diesel fuel. Fuel efficiency increases when trains move heavier shipments such as coal and steel, while it decreases with products that weigh less.

Union Pacific moved a ton of freight 456 miles on one gallon of diesel fuel. We experienced a 0.7 percent decrease in fuel efficiency in 2015 primarily driven by a decline in heavier, more fuel-efficient commodities. With an uncertain economy and demand outlook, we will continue to evaluate our locomotive fuel consumption goal as we adjust to changing market conditions.

Despite 2015 headwinds, we maintained our commitment to improve our environmental performance by investing in 100 Tier 4 locomotives, which reduce particulate matter emissions by as much as 91 percent and oxides of nitrogen emissions by as much as 90 percent, compared to locomotives built prior to EPA standards. We also added the first Generator-Set (Genset) switching locomotives certified to a Tier 4 standard to our locomotive fleet.

Union Pacific remains committed to fuel conservation and will continue seizing opportunities to engage employees, improve processes and [leverage technology](#).

# Greenhouse Gas Emissions

## GOAL

Our goal is to reduce locomotive fuel consumption rate by 0.5 percent annually from 2015 to 2017, an adjustment from last year's 1 percent goal for the same timeframe. Measured on a gross ton basis, this will result in a greenhouse gas emissions reduction rate of 0.5 percent annually. With an uncertain economy and demand outlook, we will continue to evaluate our locomotive fuel consumption rate.

Union Pacific continues exploring opportunities to deploy technologies that save fuel and optimize train scheduling. Our senior leadership is focused on this objective, and its success is directly tied to compensation based on our performance review process.

Reducing our fuel consumption remains a corporate priority, and we strive to strike an appropriate balance between financial returns, environmental performance and social commitment.



## PERFORMANCE

Union Pacific produced 11,683,549 metric tons of Greenhouse Gas emissions from fossil fuels in 2015, which is down from 2014, due primarily to a decrease in freight volume. Union Pacific's emissions from biomass sources were 129,600 metric tons, including 35,534 from renewable fuels.

Scope 3 emissions from employee travel totaled 19,803 metric tons. Employee travel includes rental car fuel and commercial air travel. We worked with suppliers to identify their Scope 3 emissions on behalf of Union Pacific. Suppliers representing an estimated 26 percent of our Scope 3 spend produced emissions totaling 266,746 metric tons in 2015, compared to 338,693 in 2014.

As part of the company's landfill diversion initiatives, we supply used wooden railroad cross ties as a fuel source in co-generation plants to produce electricity. We estimate that the consumption of 3.1 million ties resulted in 458,753 metric tons of greenhouse gas emissions.

Union Pacific's 2015 greenhouse gas inventory was verified by GHD. Union Pacific works with Trinity Consultants to compile our GHG inventory. GHD and Trinity Consultants are independent organizations.

## REDUCING CUSTOMERS' EMISSIONS

Union Pacific customers helped eliminate an estimated 32.9 million metric tons of greenhouse gases by choosing rail over truck transportation for their shipping needs.

Through our Carbon Emissions Estimator, our customers can calculate the carbon emissions reduced when they ship goods with us. We also send customers a savings estimate for their shipments.

**Carbon Emission Estimator**

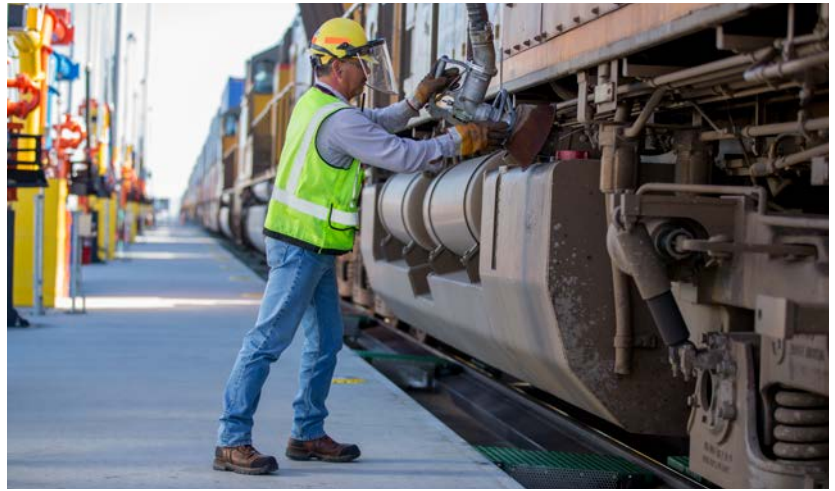
See why Union Pacific is one of the most fuel-efficient, environmentally responsible and safe modes of freight transportation. Transporting by rail consumes four times less fuel than moving the same shipment on the highway. Try out our Carbon Emission Estimator to see how shipping with Union Pacific benefits the environment.

<b>Origin City, State:</b>	<b>Destination City, State:</b>
<input type="text"/>	<input type="text"/>
<b>Commodity:</b>	<b>Number of Truckloads:</b>
<input type="text"/>	<input type="text"/>
<input type="button" value="Clear"/> <input type="button" value="Submit"/>	

## Improving Fuel Efficiency

As a railroad, we understand that fuel efficiency is a critical part of our approach to sustainability. Union Pacific employs a multi-disciplinary fuel conservation and emissions reduction team that meets regularly to focus on finding ways to reduce locomotives emissions. We understand this an environmental issue and a business issue, as diesel fuel accounts for about 15 percent of operating expenses.

In 2000, we could move a ton of freight 375 miles on one gallon of diesel fuel. By 2010, we were able to move it 495 miles. Our fuel efficiency has fluctuated over the past few years. In 2013, we declined to 471 miles per gallon, then saw an increase to 475 in 2014, followed by a reduction to 456 in 2015. While changing business conditions and commodity mixes presented challenges, multiple initiatives are creating baseline improvements.



*Jose Vences refuels a locomotive at the Santa Teresa Intermodal Facility.*

### ENERGY MANAGEMENT SYSTEMS

Locomotive engineers are trained to operate Energy Management Systems aboard locomotives. Use of these fuel conserving technologies has steadily increased in recent years.

- **LEADER (Locomotive Engineer Assist/Display and Event Recorder):** Implemented in 2012, LEADER analyzes train operations through advanced GPS maps and provides throttle and brake prompts. More than 700 locomotives are now equipped with LEADER, up from 470 in 2014. In addition, 143 of these locomotives have an auto control for greater fuel efficiency. LEADER-equipped locomotives made 9.2 million trip miles in 2015.
- **Trip Optimizer (TO):** TO automatically controls a locomotive's throttle to help keep trains on schedule while minimizing fuel use. This system calculates the most efficient way of operating a locomotive by considering factors such as train length, weight, route grade, track conditions, weather and locomotive performance. TO is now on more than 600 locomotives that made 9.8 million trip miles in 2015. This is an increase from 390 locomotives in 2014.
- **Smart Consist:** This system provides the locomotive engineer requested horsepower and tractive effort for the locomotive consist by selecting throttle notch combinations for the best fuel economy. Smart Consist is on more than 300 locomotives, up from 210 in 2014.

### EVALUATING ALTERNATIVE FUELS

Over the decades, Union Pacific has explored alternative fuels including bio-diesel, propane, [liquefied natural gas](#) (LNG) and hydrogen. As early as 1952, Union Pacific kicked off a project using gas turbine-electric locomotives.

We are continuing a multi-year evaluation of operating locomotives primarily with LNG, which may emit fewer emissions than diesel fuel. A Union Pacific employee leads the Association of American Railroads' task force evaluating LNG fuel tenders.

We plan to test LNG as a locomotive fuel source, one of many steps that will help determine if it is a commercially reliable and economical option. In preparation for the test, we have held meetings with community leaders, first responders and employees to discuss safety precautions along the test route. These efforts will continue until we complete the operation.

## Improving Operations

Union Pacific has invested about \$8 billion since 2000 to purchase more than 4,300 locomotives that meet the Environmental Protection Agency’s (EPA) Tier 0, Tier 1, Tier 2, Tier 3 or new Tier 4 standards, including 232 purchased in 2015 and 261 purchased in 2014. During this period, Union Pacific retired more than 3,000 older, less-efficient locomotives.

We have been working to revitalize rather than dispose of existing infrastructure. As part of this effort, Union Pacific has overhauled or rebuilt more than 6,400 diesel engines with emissions control upgrades.

Additionally, 96 percent of our locomotives are certified under existing EPA Tier 0, Tier 1, Tier 2, Tier 3 or Tier 4 emissions standards, which progressively add more stringent limits on engine air emissions. Our investments in new switching locomotives, which are designed to move trains or cars within a rail yard, also have helped improve fuel efficiency.

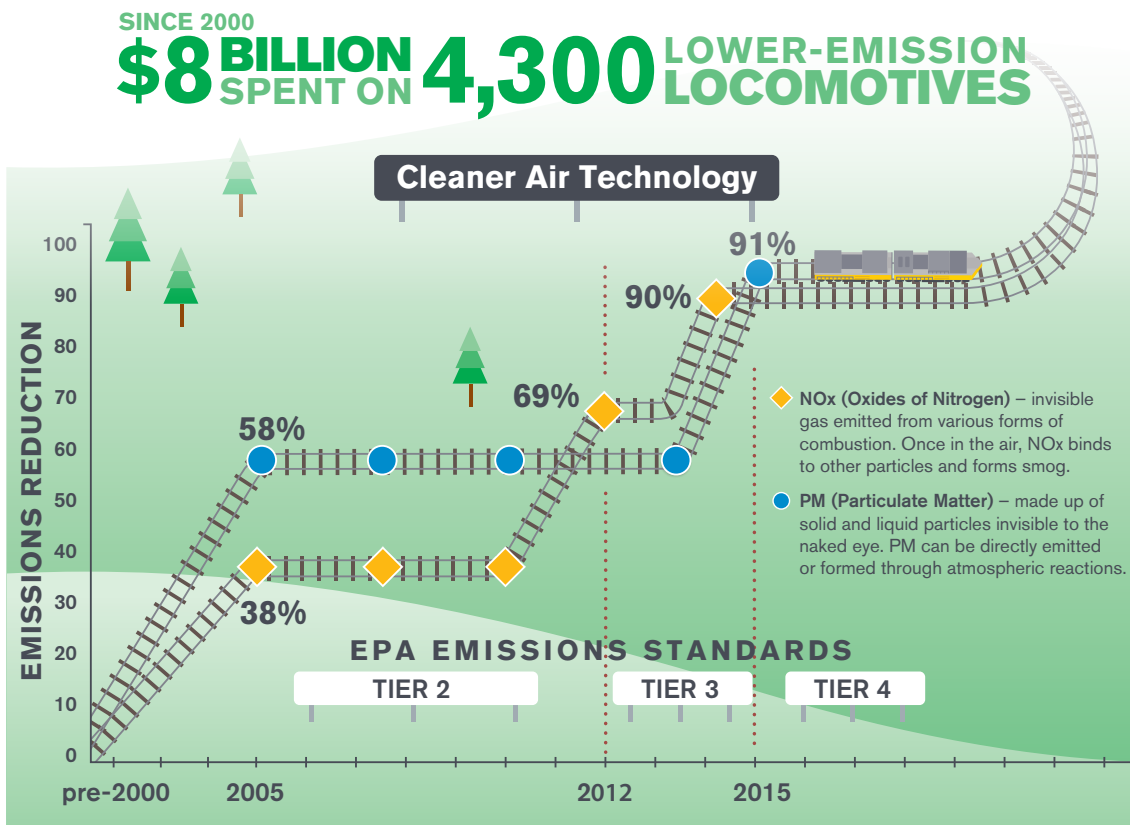
### TIER 4 LOCOMOTIVES

Union Pacific researched and collaborated with locomotive manufacturers for years to prepare for the EPA’s stringent Tier 4 emissions standards that took effect in 2015. We acquired 100 Tier 4 locomotives, which reduce particulate emissions from diesel locomotives by as much as 91 percent and oxides of nitrogen emissions by as much as 90 percent, compared to locomotives built prior to EPA standards. The Tier 4 locomotives began operating along the I-5 corridor in the western United States.

### LOW-EMITTING GENSETS AT YARD CENTER

Union Pacific created and pioneered Generator-Set, or Genset, switching locomotives which are used to move trains inside rail yards. These ultra-low emitting locomotives are equipped with multiple smaller diesel engines and generators instead of one large single engine. Compared to conventional diesel locomotives, Gensets reduce greenhouse gas emissions by as much as 37 percent, oxides of nitrogen by 80 percent and particulate matter by 90 percent.

A first set of 14 Genset locomotives certified to a Tier 4 standard was deployed to rail yard operations just south of Chicago thanks to a collaborative project that included the Illinois Department of Transportation, the Congestion Mitigation and Air Quality program and Union Pacific.



\*2015 locomotive purchases include 14 Gensets.

## CLIMATE CHANGE DATA DISCLOSURE LEADER

Union Pacific achieved a CDP carbon disclosure score of 99 out of a possible 100 and remains among the top 10 percent of all companies in the S&P 500 sample, securing another position on the S&P Climate Disclosure Leadership Index. The company maintained its B rating in CDP's performance band, on an A to E scale.

In our seventh annual CDP disclosure, we highlighted how we are managing infrastructure, equipment and operations through innovation and training to increase fuel efficiency. We again shared responsible water management approaches through CDP's water questionnaire.

Detailing emissions and energy data in the CDP report, Union Pacific is committed to participating in global discourse on the most effective approaches to addressing climate change, while supporting a thriving economy. Our environmental sustainability initiatives reinforce how we adapt and innovate to safely meet the nation's dynamic freight transportation needs.

## Addressing Climate Risk

Direct responsibility for Union Pacific's progress and status regarding climate change rests with our vice president of safety, security and environment/chief safety officer. This position reports directly to the board of directors at least annually regarding the implementation of the company's environmental policy, including activities related to climate change. In addition, the vice president of safety, security and environment/chief safety officer reports directly to the chairman, president and CEO regarding compliance with the company's environmental policy.

We are actively strengthening our railroad's ability to withstand future changes and events that might be associated with climate change, as well as increasing the overall resiliency of our system to deal with extreme weather events.

Temperature extremes can create harsh work environments for employees who work outside, increasing rail maintenance costs and impacting service by decreasing train velocity. Severe weather events, such as hurricanes, impact Union Pacific's network by causing slower train speeds, service interruptions and recovery costs. To mitigate these impacts, Union Pacific has established a variety of emergency response and resiliency plans that include strategically staging resources in affected regions prior to flooding, hurricanes or other major weather events.

Union Pacific educates the public and elected officials about how the rail industry's growth can mitigate some climate change impacts. We also work closely with public agencies to study and advance technology that will reduce train emissions. For instance, we strategically locate the newest, lowest-emitting locomotives in parts of the country with air quality challenges.

For additional information on how climate change could have a material adverse effect on our operational results, financial condition and liquidity, see the risk factors in our [Annual Report on Form 10-K](#) and CDP filings.

## Environmental Management

We strive to maintain our leadership role in providing safe, reliable, fuel-efficient and environmentally responsible transportation for the goods that families and businesses need.

Our [environmental management](#) mission is:

- **Prevention:** Prevent the causes of environmental damage that result from operations.
- **Preparedness:** Align with internal and external customers to prepare for effective response and tomorrow's environmental issues.
- **Response:** Respond to emergencies involving environmentally sensitive materials to minimize health, environmental, operational and financial impact.
- **Recovery:** Restore the environment as a result of contamination for which Union Pacific is responsible.

Union Pacific's environmental management efforts begin with our environmental policy as signed by our chairman, president and CEO. The policy applies to all aspects of our operation including emissions, resource use and waste. It outlines three primary commitments each employee must make:

- Pollution prevention
- Regulatory compliance
- Continuous improvement

These commitments ensure we align our environmental focus with our mission of service – working for the good of employees, customers, shareholders and the communities we serve and call home.

Our goal is to ensure we meet or exceed all applicable laws regulating our environmental impact. We use sophisticated systems and programs to track detailed metrics to ensure accurate reporting of our performance.

Our Environmental Management Group, which oversees Union Pacific's compliance with environmental laws and regulations, is integrated into the company's daily operations, and ensures that environmental best practices are followed through rigorous planning, coordination and communication, as well as employees' hands-on involvement and awareness.

## CONSERVING ENERGY

Our Utility Management Team completed more than 30 utility conservation projects in 2015, reducing energy consumption by nearly 5 million kilowatt hours, or the equivalent of the amount of energy consumed by more than 400 U.S. homes annually.

ENERGY CONSUMPTION*	2013	2014	2015
<b>Diesel</b>	1,103.5 gallons	1,171.2 gallons	1,071.3 gallons
<b>Gasoline</b>	12.9 gallons	12.7 gallons	11.9 gallons
<b>Other fuel</b>	13.8 gallons	13.6 gallons	17.7 gallons
<b>Electricity</b>	652.9 kilowatt hours	627.1 kilowatt hours	669.4 kilowatt hours
<b>Natural gas</b>	761.8 standard cubic feet	720.4 standard cubic feet	1,145.5 standard cubic feet

\*Estimated in millions

### Eco-Treasure Hunt Reveals Energy Savings

Employees used continuous improvement techniques and sought outside perspectives to find energy conservation and utility cost-saving opportunities at a locomotive shop in North Little Rock, Arkansas.

General Electric and an energy consultant joined our employees for a multi-day “Eco-Treasure Hunt.” The effort led to multiple energy-saving pilots, including use of LED lighting at three locations. Participants installed timers on boilers and parts washers to shut them down during non-operating hours. They also created standard processes for turning off paint booth equipment on weekends. Our team is exploring how to standardize and roll out similar initiatives at other facilities.



“Eco-Treasure Hunt” participants use continuous improvement techniques to find energy saving opportunities at the Jenks Locomotive Shop.

### Collaboration for Conservation

In an effort to identify ways to conserve energy across Union Pacific’s system, a team of employees was asked to develop energy-saving solutions for Union Pacific’s 600-plus air compressors.

Air compressors are responsible for about 20 percent of Union Pacific’s electricity consumption. They support critical functions including air brake tests, yard operations and waste water treatment pumps.

The team approached the multi-year project using the company’s UP Way process, which challenges employees to standardize work, solve problems and eliminate variability and waste. Employees sought uniform approaches to making compressor operations more productive. This resulted in replacing older air compressors with a more efficient air compressor system.

Repair facilities in Salt Lake City experienced more than 80 percent in efficiency gains with the new compressors which shut off when not in use, while their predecessors ran 24/7. Companywide, the new systems are up to 90 percent more energy efficient. The new design also requires less maintenance, increases equipment life and can be relocated to support operational changes.



A new air compressor system reduces electricity and is 90 percent more energy efficient than air compressors used prior to installation.



## Santa Teresa Intermodal Ramp Goes Gold

Our Santa Teresa Intermodal Ramp building projects earned the prestigious LEED (Leadership in Energy and Environmental Design) Gold Certification. Recognizing best-in-class building strategies and practices, LEED is a sustainable building certification program developed by the U.S. Green Building Council.

Energy efficiency is built into the 13,600-square-foot yard office structure, which contains offices, a train crew workspace and locker room facilities. It also includes a photovoltaic system: 240-volt solar panels capable of providing 40 percent of the building's power requirements. This system will save more than \$15,000 annually. Sheltering management and support staff, the 7,667-square-foot gatehouse also has a photovoltaic system. Its 240-volt solar panels provide nearly 40 percent of the building's power requirements.

Through the LEED certification, these buildings' innovations are recognized as outstanding in energy conservation, occupant health and well-being, and low environmental impact.

Our Omaha, Nebraska, headquarters building achieved LEED Silver certification in 2012.



*The Santa Teresa Yard Office is equipped with solar panels capable of providing 40 percent of the building's power requirements.*

## Energy Savings Uncovered During Data Center Projects

Union Pacific's data centers manage critical information used to operate our systems. They also consume as much as 30 percent of a building's energy load.

A project to improve redundancy, eliminate points of failure and increase capacity at our headquarters data center reaped energy efficiencies while reinforcing the center's reliability. New upgrades include:

- Six cold aisle containment systems to improve cooling efficiency. Cold aisle containment systems deliver cool 70-degree air directly to the point of use as opposed to cooling the entire data center to a lower temperature.
- Eight computer room air handling units with variable speed fans. The new units are capable of delivering more cool air with less fan energy. They eliminate the need to run additional units merely to pressurize a space under the floor.
- LED lighting in all cold aisle containment areas. The LED bulbs decrease lighting energy consumption from 28 to 16 watts per bulb.
- Sixty-one occupancy sensors that turn lights off when an area is unoccupied.

## Collaborative Opportunities

### CYCLING AT UNION PACIFIC

We worked with Heartland BCycle to install a bike sharing station outside of our headquarters building, making it easier for people to select a low-carbon travel option. Heartland BCycle is the first large-scale bike sharing system in Omaha, Nebraska, with more than 30 stations strategically located throughout the metro area.

Union Pacific also competed in the National Bike Challenge, an event to encourage 50,000 riders to pedal 30 million miles. More than 50 bike stalls are available at Union Pacific Center, and typically full from early spring to late fall.

### GREENBIZ EXECUTIVE NETWORK

Union Pacific joined the GreenBiz Executive Network (GBEN). GBEN is a membership-based peer-to-peer learning forum for sustainability executives from the world's largest companies. Its unique combination of expertly facilitated meetings and resource sharing enables members to benefit from the insights of their peers across a range of topics and sectors.

## GLOBAL ENVIRONMENTAL MANAGEMENT INITIATIVE (GEMI)

Union Pacific has participated in the Global Environmental Management Initiative (GEMI) since 2010. GEMI brings together companies from diverse industries to solve environmental problems and provide tools for the public's use. Our company continued to provide input and business cases for GEMI's Quick Guide series, which provides a closer look into the methods corporations use to address sustainability topics.

## CALIFORNIA AIR RESOURCES BOARD AND CALIFORNIA AIR DISTRICTS

Union Pacific continues to work with the California Air Resources Board (CARB) and California's regulatory air districts to reduce emissions and improve air quality. Our collaboration with CARB began in the mid-1990s through a first-of-its-kind commitment to bring the most advanced and environmentally friendly locomotive technology to the South Coast Air Basin by 2010, with a continuing commitment through 2030.

Union Pacific facilitates discussion to broaden awareness as CARB and other relevant entities consider future steps. In 2015, CARB and Union Pacific hosted two annual inspections of rail yards throughout California. Video footage was taken during the fall inspection to communicate our collaborative efforts.

## CALIFORNIA COUNCIL FOR ENVIRONMENTAL AND ECONOMIC BALANCE

The California Council for Environmental and Economic Balance (CCEEB) has worked since 1973 to solve the most pressing environmental policy problems facing California. CCEEB is a nonprofit, non-partisan coalition of industry, labor and public leaders dedicated to making environmental and economic balance a reality. Union Pacific has been a member and has had an employee serving on CCEEB's board since 1992.

## WILDLIFE HABITAT COUNCIL

Union Pacific became a member of the Wildlife Habitat Council (WHC) in 2015. WHC promotes and certifies habitat conservation and management on corporate lands through partnerships and education. WHC programs translate corporate sustainability goals and objectives into tangible and measurable on-the-ground actions. Through a focus on building collaboration for conservation with corporate employees, other conservation organizations, government agencies and community members, WHC programs focus on healthy ecosystems and connected communities. WHC is providing expertise to promote pollinator habitat development.

## ASSOCIATION OF AMERICAN RAILROADS

Union Pacific has teamed with other railroads to form a Sustainability Task Force through the Association of American Railroads. The task force establishes a forum for railroads to share best practices related to industry sustainability. We also co-sponsored the Railroad Sustainability Symposium.

## CONSERVATION SCHOLARSHIPS

In conjunction with our Earth Day observances, Union Pacific offered four scholarships worth \$500 each to high school students undertaking [conservation projects](#) in their communities. The winners' projects included planting trees to restore a city park damaged by a storm, installing a water bottle filling station and water recycling for garden boxes at a high school, creating a map updating trail markers at a nearby state park, and refurbishing a school's learning garden.

One winner, Austin Feller from Shenandoah, Iowa, planted four large cottonwood trees near the Wabash Trace Nature Trail in western Iowa. He strategically planted the trees in locations where they would prevent a stream from reaching the trail's path. The trail sits on a key route once operated by the Wabash Railroad, which connected farmlands, factories and passengers starting in the 19th century.



*Austin Feller, conservation scholarship winner*

## Waste Management

Our approach to responsible material management is expanding as we identify opportunities to more efficiently use materials and divert waste from landfills, minimizing our environmental impact and resource loss.

We estimate that we generated about 1.04 million tons of waste in 2015. We diverted 707,000 tons, an estimated 68 percent of our waste, from landfills.

Employees' perspectives are a significant catalyst for improvements in our waste management and environmental citizenship. In 2008, we formally began encouraging employees to suggest environmental sustainability tips and ideas. We have since received more than 3,600 ideas from 2,200 people. Over 40 percent of these suggestions led to changes in our programs and processes.

### OUR EFFORTS

We are taking action on many fronts to reduce our environmental impact. Process changes have decreased our federal large-quantity hazardous waste generator sites from 35 to two. We recycle at the vast majority of employee locations and our Environmental Management Group routinely works with employees across the system to comply with waste disposal regulations.

- **E-Waste:** Union Pacific recycles electronics that have reached the end of their useful life, commonly known as e-waste. The company recycled or distributed more than 270,000 pounds of electronic equipment and more than 1.3 million pounds of signal batteries.
- **Fuel and Oil:** We recycled more than 4.2 million gallons of oil and fuel. Our equipment and maintenance processes capture used oil and fuel at our facilities for recycling. In addition, drip pans and other collection systems are placed under engines to catch spills, separators extract engine oil from wastewater and fuel nozzles shut off automatically to prevent overflow.
- **Headquarters Dining Room Waste:** Thousands of employees and guests enjoy breakfast and lunch at the Union Pacific Center's dining room during the work week. Several initiatives emphasize the importance of using ceramic dinnerware provided in the dining room instead of disposable products intended for take-out. We reduced consumption of disposable products by 12 percent by placing reusable items in strategic locations and offering reusable cup incentives.

## Water

As a steward of the environment and in accordance with our environmental policy, Union Pacific strives to conserve America's resources, including water. We estimate that we used 1.54 billion gallons of water in 2015.

For the second time, the company participated in CDP's water questionnaire, outlining efforts to responsibly manage water. Our risk assessments are primarily qualitative and include but are not limited to weather response plans, regulatory and environmental impact risk mitigation strategies, and water infrastructure investment strategies. The company's role in water management stretches back to our beginnings, as we frequently were the first land developer across the western United States. To this day, Union Pacific is responsible for providing safe drinking water to the public in a handful of locations.

Union Pacific has thousands of water utility accounts across our 32,000-mile network. We continue efforts to conserve and reduce water use at our facilities.

Protecting water also is important. We have spill prevention control and countermeasure plans at more than 130 Union Pacific facilities. We also operate and maintain 89 wastewater treatment facilities that capture wastewater created during equipment washing, locomotive fueling and maintenance, intermodal crane and truck maintenance, track and roadway equipment shop maintenance, and storm water accumulation at shop facilities. To ensure it meets acceptable cleanliness levels, captured wastewater undergoes treatment that requires stringent compliance with governmental regulations and wastewater discharge permits.

## Stewards of the Land

Union Pacific balances its commitment to transporting goods efficiently with its impact on communities, wildlife and the environment. Ensuring the preservation and resiliency of the land on which we operate helps us as a business and is a priority for the company.

Rail operations can contribute to land and water contamination. Union Pacific actively works to prevent contamination by employing best practices in operations, overseeing lease tenants and proactively working with customers. We also restore land contaminated by prior rail operations. In some cases, Union Pacific works with regulators to go beyond minimum remediation requirements to further protect the land and waterways.

Among other efforts, we work with tenants to improve environmental conditions of lease sites, address land impacts as part of our preparedness initiatives and incorporate soil reuse criteria into construction projects.

### SACRAMENTO RAIL YARD CLEANUP CLEARS WAY FOR ECONOMIC REVITALIZATION

The Sacramento Rail Yard (Sac Yard) sits prominently on a 240-acre section of land just north of downtown Sacramento, California. The location that once served as the terminus for the Transcontinental Railroad now stands as a symbol of one of the country's most successful EPA brownfield remediation projects. It also represents a tremendous economic revitalization opportunity for the core of California's capitol city.

Sac Yard has been used as a locomotive maintenance facility since being founded by Central Pacific Railroad in 1863 and operated by Southern Pacific and Union Pacific in following years.

In the 1860s, the land was a swampy lake. Central Pacific was given the property under the condition that it fill the swamp. Materials used to do so, per standard practices of the time, contributed to the enormity of the remediation work.

Union Pacific took the following approach to cleaning and revitalizing the area:

- **Investigate:** We began by collecting soil and water samples.
- **Evaluate results and determine cleaning approach:** In accordance with multiple laws and regulations, we decided to divide and conquer, splitting the yard into 30- to 40-acre subunits called "study areas."
- **Start Cleaning:** Through the process, we discovered groundwater contamination. To address the discovery, we built a 70-foot wall around the contaminated water. Then we installed ground water wells to pump the water out. Like putting a straw in a glass, this system allowed us to remove the solvents successfully.

The Sac Yard redevelopment is expected to include a hospital, Major League Soccer stadium and homes. Sacramento residents hope to see construction begin as early as 2018.



*The 19th century brick buildings, originally called the Central Shops, will be incorporated into future Sacramento Yard development.*

## Compliance

Union Pacific is committed to following applicable laws and regulations in all areas of our operations. From time to time, we are involved in legal proceedings, claims and litigation that occur in connection with our business. For example, we received notices from the EPA and state environmental agencies alleging that we are or may be liable under federal or state environmental laws for remediation costs at various sites throughout the United States, including sites on the Superfund National Priorities List or state superfund lists. We cannot predict the ultimate impact of these proceedings and suits because of the number of potentially responsible parties involved, the degree of contamination by various wastes, the scarcity and quality of volumetric data related to many of the sites, and the speculative nature of remediation costs. Where we are found in violation of specific rules or regulations, we seek remedy through the appropriate channels.

# Looking Ahead

## FEEDBACK

For questions on this report or to provide feedback, contact Union Pacific via email at [sustainability@up.com](mailto:sustainability@up.com).

## OUR COMMITMENT

Since our founding more than 150 years ago, Union Pacific has driven economic growth in America. Our mission, vision and values all are focused on completing tasks better tomorrow than we do today, enabling Union Pacific to remain critical to the American economy in the centuries to come. We will continue to strive to be the best in the business in our safety initiatives, on our tracks, in our communities, across our workforce and for our environment. The 2015 Union Pacific Building America Report shares our initiatives and progress thus far. We are proud of our accomplishments and our work to improve our operations. In the years ahead, we will continue to invest in our employees, communities and infrastructure because they shape our growth and success.

## CAUTIONARY INFORMATION

Our 2015 Building America Report provides additional explanatory information regarding Union Pacific that may not be available, included or directly derived from information in the company's Annual Report. This report includes statements and information regarding future expectations or results of the company that are not historical facts. These statements and information are, or will be, forward looking as defined by the federal securities laws. Forward-looking statements and information can be identified by use of forward-looking terminology (and derivations thereof), such as "believes," "expects," "may," "should," "will," "would," "intends," "plans," "estimates," "anticipates," "projects" and other words or phrases of similar intent. Forward-looking statements and information generally include the following: the company's expectations or forecasts with respect to general economic conditions in the United States and the world; the company's financial and operational performance; increases of the company's earnings; demand for the company's rail service; improving customer service; enhancing profitability; volume and revenue growth; efficiency improvements and increasing returns; and improving asset utilization. Statements also include the effectiveness or growth of new and newer services; management of network volumes; increasing shareholder value; total amount of capital investments; completion and effectiveness of capacity expansion and other capital investments, and other investments in infrastructure improvements; returns on capital investments; improvements regarding safety of our operations and equipment; improving efficiencies in fuel consumption; preserving the environment and communities where the company operates; and effectiveness of plans, programs and initiatives to reduce costs and other efficiency improvements. Forward-looking statements and information should not be read as a guarantee of future performance or results and will not necessarily be accurate indications of the times that, or by which, such performance or results will be achieved. Forward-looking statements and information are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the statements. Forward-looking statements and information reflect the good faith consideration by management of currently available information and may be based on underlying assumptions believed to be reasonable under the circumstances. However, such information and assumptions (and, therefore, such forward-looking statements and information) are or may be subject to variables or unknown or unforeseeable events or circumstances over which management has little or no influence or control.

The risk factors in Item 1A of the company's [Annual Report on Form 10-K](#), filed Feb. 5, 2016, could affect our future results and could cause those results or other outcomes to differ materially from those expressed or implied in the forward-looking statements and information. This report should be read in consideration of these risk factors. To the extent circumstances require or the company deems it otherwise necessary, the company will update or amend these risk factors in subsequent Annual Reports, periodic reports on Form 10-Q or current reports on Form 8-K. Forward-looking statements speak only as of the date the statement was made. We assume no obligation to update forward-looking information to reflect actual results, changes in assumptions or changes in other factors affecting forward-looking information. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect thereto or with respect to other forward-looking statements.

## ADDITIONAL RESOURCES

For ongoing updates on our citizenship and sustainability efforts, visit [www.up.com](http://www.up.com).

- [Media](#). Up-to-date information about Union Pacific
- [Environment](#). Sustainability commitments and progress
- [Employees](#). Programs and services available to the members of our workforce
- [Customers](#). Product offerings and business groups
- [Investors](#). Annual report, proxy statements and other SEC filings
- [Communities](#). News, photos and video about Union Pacific, our employees and the communities where we operate