

# AMTRAK® SUSTAINABILITY REPORT 2013



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# PRESIDENT'S MESSAGE

Welcome to Amtrak's 2013 Sustainability Report. I'm excited to share our progress.

Amtrak provides an energy efficient transportation option for travelers. Compared to cars, train travel produces 30% fewer greenhouse gas emissions on a per passenger mile basis, and 11% fewer emissions than airplanes. We are continuously working to improve our operation – from our trains to our yards and stations – by reducing fuel and energy consumption, which also reduces

emissions and saves money. We have made significant progress on fuel and energy reduction through efforts such as lighting upgrades, but we know we have room for even greater improvement.

Amtrak established our first comprehensive corporate Sustainability Policy in July 2013. Our Policy laid the groundwork to incorporate the three pillars of sustainability - environmental, economic and social considerations - into our business decision-making processes. This Sustainability Report is intended to provide an honest and transparent assessment of Amtrak's initiatives, successes and challenges in the field of sustainability. The Policy is the cornerstone of our Sustainability Program, which also includes external sustainability commitments, including the American Public Transportation Association Sustainability Commitment and annual climate change reporting through the Carbon Disclosure Project.

Amtrak's three main strategic goals are Safety and Security, Customer Service, and Financial Excellence. The Sustainability Program supports With a focus on environmental, economic, and social factors within the organization, the Sustainability Program is part of a strategy that will help Amtrak continue to evolve into the kind of organization that makes the most efficient use of resources, is a good neighbor in the communities we serve, and continues to provide a smart choice for the travelling public.

each of these goals. With a focus on environmental, economic, and social factors within the organization, the Sustainability Program is part of a strategy that will help Amtrak continue to evolve into the kind of organization that makes the most efficient use of resources, is a good neighbor in the communities we serve, and continues to provide a smart choice for the travelling public.

I hope you will find this report both informative and useful. As we continue to work toward a more sustainable organization, we value input and feedback from you, our stakeholders.

Austin

Houston

in Marcos

Joseph Boardman

ABOUT AMTRAK

# ABOUT THIS REPORT

This Sustainability Report represents Amtrak's first comprehensive public disclosure regarding our corporation's sustainability initiatives. In the following pages, you will read about Amtrak's route to a more sustainable future, beginning with our adoption of a corporate-wide Sustainability Policy in 2013, and the integration of the principles of sustainability into our existing environmental management structure. In 2013, we also completed our first materiality assessment with an internal group of environmental professionals, and held sustainability workshops with small groups from various departments to facilitate discussion with Amtrak employees about our policy, program, and goals.

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In the past we have published environmental reports, but this

comprehensive Sustainability Report is organized around the triple bottom line structure of environmental, social, and economic aspects of our operations, and represents a significant progression from our past reporting. This report is an initial step in our efforts to progress toward reporting in conformance with the internationally recognized and widely accepted G4 Sustainability Reporting Guidelines developed by the Global Reporting Initiative (GRI). We acknowledge that this report will not fully meet the criteria put forth in the G4 Guidelines, but it will lay the groundwork for a more complete account of our efforts in future years.

As part of Amtrak's strategic planning effort, four corporate goals were set for the 2013 fiscal year (FY) to reduce our environmental impacts and improve operating efficiency. These goals relate to reductions in electricity usage, locomotive diesel fuel conservation, and reductions in greenhouse gas emissions, as well as a focus on our facilities' environmental compliance. We exceeded our fuel reduction target and achieved an average environmental audit score above our goal in FY 2013. We did not meet our goal for reducing electricity usage at our largest 15 facilities, but achieved a smaller reduction. Finally, we met one part of our intensity-based GHG reduction goal and were close to meeting the second part. Based on these results, we recognize that we have more work to do as a corporation, and we are committed to setting specific and measurable goals to continually benchmark our progress in future years.

#### OUR FOUR ENERGY AND ENVIRONMENTAL GOALS :

ELECTRICITY

Reduce electricity use at our 15 largest facilities by 1%

LOCOMOTIVE DIESEL FUEL Reduce revenue train diesel fuel use by 1%

### **GREENHOUSE GAS**

EMISSIONS Reduce Greenhouse Gas (GHG) emissions intensity by 1%

#### ENVIRONMENTAL MANAGEMENT PERFORMANCE

Achieve an average environmental audit score of 83

Learn more on Page 12

We continue to invest in projects that promote interconnectivity and accessibility in the communities in which we operate, making significant strides through the Amtrak Accessible Stations Development Project (ASDP), and extending our "Thruway Service" Program. In 2013, we established pilot programs for passengers to bring bicycles aboard our trains, and we continued to create a culture of rail safety in the communities we serve through our Operation Lifesaver Program. We have also expanded our Safety and Security focus by creating the Emergency Preparedness and Corporate Security Department, which will utilize a security risk management strategy to address threats and vulnerabilities associated with natural hazards and acts of terrorism. Finally, to encourage our employees to live healthy and balanced lives, we continued our Safe-2-Safer injury reduction initiative and expanded our Employee Wellness Programs.

From a financial standpoint, in 2013 we invested in projects that provide significant cost savings along with positive environmental and social benefits. These included capital projects that provide energy savings, such as the replacement of a chiller plant in one of our largest stations and the purchase of new GenSet Switcher locomotives which achieve significant fuel savings. We know that integrating sustainability into our financial decisions will provide long lasting value to our stakeholders while enhancing our operational efficiency. At Amtrak, we are committed to investing in programs and technology that will advance rail transportation in North America for decades to come.

We want to ensure that we report on our progress and challenges each year. We recognize that these efforts represent just the beginning of Amtrak's journey. We hope that you will join us for the ride, and we invite you to contact us at <u>AskEnvironmental@amtrak.com</u> should you have any comments, questions, or suggestions related to this report or to our operations.

# ORGANIZATIONAL PROFILE: OUR BUSINESS

The National Railroad Passenger Corporation (Amtrak) manages a network of long-distance, corridor, and high-speed passenger rail services. Amtrak offers passengers a safe, reliable, and fuel-efficient alternative to automobile and air travel, thereby helping to reduce highway congestion and the demand for passenger vehicle fuel in North America.

![](_page_5_Picture_5.jpeg)

Headquartered in Washington, DC, Amtrak unites multiple modes of transportation, connects communities, and continues to set ridership records each year. In FY 2013 (October 1, 2012 – September 30, 2013) more than 31 million passengers traveled with us, setting our 10th ridership record in the past 11 years. Amtrak operates more than 300 daily intercity trains along more than 21,000 route miles, serving over 500 destinations in 46 states as well as the District of Columbia and three Canadian provinces. Amtrak's total revenues in FY 2013 reached a record \$2.9 billion.

Amtrak is organized into three Business Lines within our Operations Department. These Business Lines include the Northeast Corridor Operations (NEC), Long Distance Services, and State Supported Corridors. Amtrak's NEC is the busiest railroad in North America, with more than 2,200 regional, long distance, and commuter trains operating along the Washington, DC to Boston, MA route every day. On the NEC, Amtrak offers passengers multiple service levels including first class, business class, and coach. We also offer passengers North America's only high speed rail service (up to 150 mph) aboard the Acela Express. Nationally, Amtrak operates 15 long distance trains. In many cases, these long distance trains provide communities with their only alternative transportation option for intercity passengers. State Supported Corridor trains operating outside of the

trains operating outside of the NEC are the fastest-growing component of our rail system, with 18 state partnerships and 13 commuter agency agreements in place during 2013. Examples of these partnerships include routes in California, the Pacific Northwest, the metropolitan region surrounding Chicago's Union Station, and connections from peripheral communities to our Northeast Regional trains.

Outside of the electrified NEC, Amtrak trains are powered by diesel locomotives and operate on track owned by host railroads. Along with operating passenger service on these routes, Amtrak owns and/or maintains 759 miles of right-ofway, 17 tunnels, and more than 1,000 bridges. Approximately half of Amtrak's property is located along the NEC, though other large tracts of property are located in Pennsylvania,

![](_page_6_Picture_3.jpeg)

Michigan, and Indiana. Amtrak customers are likely most familiar with the 105 station facilities that the corporation owns or operates, but behind the scenes Amtrak also operates maintenance and repair facilities to provide maintenance and overhaul services to over 2,600 passenger cars and locomotives.

Throughout this extensive network of tracks, train yards, maintenance, and passenger facilities, Amtrak works proactively to meet or exceed federal, state, and local environmental requirements. Amtrak's Environmental Policy – which came into effect in 2001 – clearly states our environmental commitment, which is based on the principles of compliance, leadership, and stewardship. In working to connect communities and provide efficient and cost effective transportation, Amtrak strives to go beyond basic environmental compliance to operate in a manner that contributes to the well-being of our communities and our planet. As a way to formalize these goals, Amtrak implemented a corporate-wide Sustainability Policy in 2013.

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# SUSTAINABILITY POLICY

### Amtrak's Executive Committee approved the company's first Sustainability Policy in July 2013.

The Policy defines sustainability for Amtrak to mean "operating in a way that creates long-term value by balancing the needs of the organization with the needs of future generations through consideration of environmental, economic, and social factors". With the Policy as its foundation, Amtrak continues to develop a corporate-wide Sustainability Program, integrating sustainability practices throughout our operations in a transparent and measureable way.

Amtrak was actively pursuing sustainability commitments well before the adoption of this corporate-wide Sustainability Policy. These external commitments have helped to pave the way for the development of our Sustainability Policy and continue to shape our corporate Sustainability Program.

![](_page_7_Figure_4.jpeg)

Amtrak signed the American Public Transportation Association (APTA) Sustainability Commitment, which requires signatories to develop a baseline inventory of GHG emissions, water and energy usage, waste generation, recycling rates, and air emissions of criteria pollutants. Amtrak achieved the Bronze level of the APTA Sustainability Commitment by completing a sustainability inventory, implementing environmental initiatives, and establishing goals for the reduction of fuel use in locomotives and electricity use at our facilities.

Amtrak transitioned from reporting GHG data through TCR to reporting GHG data as well as climate change strategy and initiatives through the Carbon Disclosure Project (CDP).

#### CORE ELEMENTS OF THE AMTRAK SUSTAINABILITY POLICY

The core elements of the Amtrak Sustainability Policy are:

- To incorporate environmental, economic, and social sustainability considerations into Amtrak business decisionmaking processes and operations;
- To assist Amtrak in achieving the goals outlined in our Strategic Plan;
- To provide the foundation for the Amtrak Sustainability Program; and
- To provide guidelines for recognizing Amtrak departments for their sustainability initiatives and achievements.

The Policy provides structure for the governance and implementation of the Program and details the committees that are responsible for overseeing the Policy and the various elements of the Program. The day-to-day implementation of the Program is led by Amtrak's Environment and Sustainability Group.

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# GOVERNANCE STRUCTURE

## ENVIRONMENT AND SUSTAINABILITY MANAGEMENT SYSTEM

Following the adoption of our corporate Sustainability Policy, the Environmental Executive Oversight Committee (EEOC) approved using the Amtrak Environmental Management System (EMS) as the framework for governing and advancing Amtrak's corporate Sustainability Policy and Program.

As of October 1, 2013, the management system formally became the Environment and Sustainability Management System (ESMS). The governing committees were renamed, with the EEOC becoming the Environment and Sustainability Oversight Committee (ESOC), and the EMS Steering Committee becoming the Environment and Sustainability Management System (ESMS) Steering Committee. The ESOC is led by Amtrak's Chief Legal Officer and Chief Operating Officer, and the committee is composed of the General Managers of the operating business lines and department heads of various departments within Amtrak.

The ESOC oversees the efforts of the multi-departmental ESMS Steering Committee, which guides the implementation of the ESMS and the Sustainability Program. The ESMS Steering Committee members work within their departments and business lines to incorporate sustainability into business decision-making processes and operations.

Amtrak's Environmental Group was renamed the Environment and Sustainability Group, and now has responsibility for leading, managing and reporting on Amtrak's environmental and sustainability programs The Group's mission is to maintain Amtrak in compliance with federal, state and local environmental legal and regulatory requirements, and advance operationally sound and sustainable business solutions for the company.

The Environment and Sustainability Group serves three main functions:

**Environment and Sustainability Management System (ESMS)** 

The ESMS supports environmental compliance by developing and delivering environmental procedures and training to Amtrak personnel across the corporation. This includes communications, compliance guidance, regulatory reports, and field operations management to support business operations. The ESMS integrates environmental, economic, and social sustainability considerations into Amtrak business decision-making processes and operations and strategic planning. The Environmental Compliance Audit Program (which is managed independently within the Amtrak Law Department) provides systematic review of regulatory compliance and ensures conformance with ESMS procedures and goals.

### Sustainability Program

The Program works with departments across the organization to identify sustainable business solutions and initiatives in support of Amtrak's strategic goals, assists with the implementation of new sustainability initiatives and targets, tracks performance against targets, and reports publicly on metrics (including greenhouse gas emissions).

### **Environmental Project Management**

The Environment and Sustainability Group provides project management for operating and capital projects, including remediation of environmental contamination on Amtrak properties, and environmental risk reduction projects at Amtrak facilities.

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# ETHICS AND INTEGRITY

As part of Amtrak's commitment to ethics and integrity, all employees are required to follow the Amtrak Standards of Excellence which mandate the highest professional standards. The cornerstones of these Standards include honesty, trust, and respect; legal compliance; ethical conduct; and socially and environmentally responsible conduct. The Standards of Excellence also remind employees of their duty to promptly report any actual or suspected misconduct. Failure to fulfill this duty by our employees is a violation of Amtrak's Code of Ethics and may result in disciplinary measures and termination of employment.

Amtrak has implemented a non-retaliation policy which prohibits retaliation against an employee for raising a concern and/or reporting actual or suspected misconduct in good faith. There are also multiple avenues through which ethics concerns can be reported confidentially by employees, including the Amtrak Ethics Information Hotline, the Chief Legal Officer, and the Amtrak Office of the Inspector General.

# STAKEHOLDER ENGAGEMENT AND MATERIALITY ANALYSIS

Amtrak has identified employees, passengers, communities served by Amtrak, Congress, State partners, and the general public as key stakeholders that influence our operations.

Since adopting our Sustainability Policy, we have focused on internal stakeholder engagement through a series of employee workshops. We continue to communicate and engage with external stakeholders through a variety of outlets including social media, press releases, Earth Day events, and marketing materials, as well as through project-specific community engagement.

Beginning in November of 2013, the Environment and Sustainability Group began holding employee engagement workshops that focused on familiarizing individual departments and business lines with the Amtrak Sustainability Policy and the company's sustainability goals and objectives. The workshops also enabled us to gather data on current initiatives throughout the corporation that fall under the umbrella of sustainability to better inform our tracking and reporting on these initiatives. Each workshop was tailored to the particular group or department to engage employees in discussion around what the concept of sustainability means in the context of their professional duties and responsibilities.

In September 2013, Amtrak conducted a sustainability materiality assessment workshop facilitated by an independent consultant with expertise in the GRI G4 Reporting Guidelines. This internal materiality assessment was conducted as part of a staff workshop held by the Environment and Sustainability Group, and was attended by Amtrak environmental professionals and the environmental counsel. The GRI-focused materiality assessment involved the identification and discussion of environmental, social, and economic issues that are material to Amtrak across the entire value chain. For Amtrak, material issues are those that have the potential to significantly impact our core business performance as well as those that are considered important to key stakeholders.

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This initial materiality assessment highlighted the following issues as being material:

- Operational energy efficiency
- Employee safety
- Operational safety
- Passenger and public safety
- Improving the customer experience
- Government relations
- Financial accountability

This materiality process will be further informed by the enterprise risk management initiative that Amtrak began in 2013 (see discussion in the <u>Economic section</u> of this Report). This is an enterprise-wide initiative to identify all objectives and risks relevant to Amtrak's business. The process requires evaluating climate change, environmental, sustainability, energy, and other related risks that bear on Amtrak's business objectives.

Building on the results of the September 2013 materiality assessment and our enterprise risk management initiative, the Environment and Sustainability Group will explore the most appropriate methods to further broaden and strengthen our materiality process to include a greater representation of internal and external stakeholders. In future years, we will continue to formalize our approach to assessing materiality through stakeholder engagement and will refine our Sustainability Program accordingly.

# ENVIRONMENT

ASHLAND

Amtrak's Environmental Policy describes the corporation's commitment to full compliance with all applicable environmental laws and regulations and the adoption of practices that increase efficiency, reduce environmental impacts, and promote the sustainable use of resources. Our Environmental Policy is based on the principles of compliance, leadership, stewardship, and a commitment to continuous improvement.

# ENERGY AND ENVIRONMENTAL GOALS

With the development of the corporation's first five-year Strategic Plan in 2011, Amtrak established Corporate energy and environmental goals and performance measures focused on electricity and fuel consumption and environmental management.

In addition to their environmental sustainability benefits, these goals are directly related to our corporate-wide strategic goal of Financial Excellence in that they contribute to reducing operating costs and improving operating efficiencies. The goals are established on a fiscal year basis to align with financial and operating goals. Each year, we review these goals and performance measures and adapt them to better reflect the current operations and capabilities of our organization. Amtrak's FY 2013 electricity, fuel, and environmental goals, and our progress against these goals, are summarized in Table 1.

#### Table 1: Performance against Amtrak FY 2013 Sustainability Goals

Goal	Achieved	Not Achieved	Notes
Electricity: reduce electricity use at our 15 largest facilities by 1% annually		Achieved a 0.76% reduction from FY 2012	Supports corporate energy efficiency and climate- related objectives and our strategic goal of Financial Excellence.
Locomotive Diesel Fuel: reduce revenue train diesel fuel use by 1% annually	Achieved a 1.11% reduction from FY 2012		Revenue trains are defined as locomotives that move passengers and generate income. Diesel lo- comotive fuel is the largest contributor to Amtrak's GHG emissions and is a major operating cost.
Greenhouse Gas Emissions: reduce Greenhouse Gas (GHG) emissions intensity by 1% annually	GHGs per million seat miles decreased by 1.36% from FY 2012	GHGs per million passenger miles decreased by 0.39% from FY 2012	Our 2011 emissions profile is used as the baseline for this goal. Our GHG emissions are calculated based on the actual use of locomotive diesel fuel as well as the purchase, estimated purchase, or estimated use of other forms of energy, fuel, and refrigerants. Intensity measures are derived by divid- ing total GHG emissions by <u>seat miles</u> (a measure of carrying capacity equal to the number of seats available multiplied by the number of miles trav- eled) and <u>passenger miles</u> (a statistical unit denot- ing one mile traveled by one passenger, used in measuring the volume of passenger traffic).
Environmental Management Performance: achieve an aver- age environmental audit score of 83 for FY 2013	Achieved an average audit score of 84.9, up 10.55% from FY 2012		Incorporating sound environmental management practices into our operations ensures responsible management of environmental risks, reduces our environmental footprint, and reduces the potential for penalties and fines for non-compliance.

# Achieving Excellence in Energy Efficiency: Sanford Auto Train Facility Wins Amtrak Award

The Sanford Auto Train facility received the first Amtrak Energy Efficiency Award for achieving the highest percentage reduction in electricity use in 2013. Over the span of two years, this facility reduced electricity usage by 858,373 kilowatt hours (kWh) and reduced its electricity expenses by over \$71,000. Sanford, Florida is one of Amtrak's 15 largest facilities, which together account for approximately 70 percent of the company's non-traction electricity consumption. These facilities have made great strides in the past two years toward achieving energy efficiency, reducing total electricity costs by \$4.1 million and consumption by 18.6 million kWh.

Since 2010, over \$4 million has been committed across the company to install more than 7,000 light fixtures with improved energy efficiency and to implement other energy efficiency projects. In most cases, the new lighting has not only provided greater energy efficiency, but has also improved the quality of illumination for employees, making their workplaces safer and more effective.

![](_page_15_Picture_0.jpeg)

### PERFORMANCE AGAINST AMTRAK FY 2013 SUSTAINABILITY GOALS

In FY 2013, total electricity consumption at Amtrak's largest 15 facilities decreased by 0.76 percent from the previous fiscal year. This decrease is slightly below our one percent reduction goal. The facility results are attributable to a variety of individual projects including the installation of energy-efficient lighting, and upgrades to heating, ventilation and air conditioning (HVAC) systems. The decrease was small because several sites experienced increased electricity usage due to the colder winter temperatures and increased use of 480V standby power compared to FY 2012. However, due to facility projects over the past two years, the overall reduction in electricity use from FY 2011 to FY 2013 was 4.72 percent for the 15 largest facilities.

Amtrak reduced locomotive diesel fuel use in revenue-generating trains by 1.11 percent from FY 2012 to FY 2013, exceeding the goal of a one percent reduction. Initiatives to reduce usage of locomotive diesel fuel included the implementation of a campaign that focused on shutting down diesel locomotives when they are out of service for one hour or more; the use of Automatic Engine Stop-Start technology; and the use of ground power to "plug in" trains when power is needed at stations and other layover locations, rather than the traditional practice of relying on diesel locomotives to provide this power.

Amtrak GHG emissions per seat mile decreased by 1.36 percent from FY 2012 to FY 2013, exceeding the one percent reduction goal, whereas GHG emissions per passenger mile decreased by 0.39 percent over the same period, short of the one percent goal. It is likely the severe winter experienced in the Eastern and Midwestern United States in 2013 contributed to higher than normal emissions from natural gas and other fuel sources. However, the energy efficiency and fuel conservation projects implemented over the past few years have helped reduce total GHG emissions by reducing overall energy and fuel use.

# **EMISSIONS PROFILE**

In 2009, as part of an effort to calculate, define, and better understand our carbon footprint, Amtrak joined The Climate Registry (TCR). Amtrak committed to the organization's comprehensive standards for calculating and reporting GHG emissions using TCR's General Reporting Protocol (GRP).

The 2010 calendar year GHG Inventory was Amtrak's first official inventory completed and made available to the public. In 2013, Amtrak began reporting our GHG inventory and information about our climate initiatives to the Carbon Disclosure Project (CDP), while continuing to adhere to TCR's GRP for the preparation of the inventory. CDP requires that participating organizations report on direct and indirect emissions.

Each year, Amtrak's GHG inventory undergoes a third-party verification process to ensure accuracy. Table 2 includes highlights from the emissions data submitted in Amtrak's 2013 CDP report.

Emissions Source Category and Intensity	2013 Result	Units
Direct GHG Emissions (Scope 1)	725,714	metric tons CO <sub>2</sub> e
Indirect GHG Emissions (Scope 2)	373,948	metric tons CO <sub>2</sub> e
Total Scope 1 and 2 Emissions	1,099,662	metric tons CO <sub>2</sub> e
Other Indirect GHG Emissions (Scope 3)*	31,526	metric tons CO <sub>2</sub> e
	93.22	metric tons CO <sub>2</sub> e/million passenger miles
	161.48	metric tons CO <sub>2</sub> e/million seat miles

#### **Table 2: Summary of 2013 GHG Emissions**

\* Amtrak's Scope 3 emissions include emissions from line loss of electricity and natural gas during transmission and distribution.

Amtrak's GHG inventory is developed annually using six different "facility groups". A description of the emission sources from each group is included in Table 3. The inventory represents a comprehensive accounting of emissions throughout the entirety of Amtrak's operations.

#### **Table 3: Description of Amtrak Facility Groups**

Emissions Source Category and Intensity	2013 Result
Rolling Stock	Includes diesel / electric locomotives and passenger cars.
Highway Vehicles	Includes leased General Services Administration highway vehicles and all other highway vehicles owned or leased by Amtrak.
	Includes all switches, switch heaters, signals, crossings, lights, towers, and any other device on the Right of Way.
Right of Way	Includes paralleling / switching equipment and substations that are part of the catenary system in the electrified NEC.
	Includes moveable bridges along the NEC.
Small Stations	Includes stations owned by Amtrak or where Amtrak has a presence as a lessee, and where minor or no maintenance occurs.
Single Stationary Facilities	Includes major facilities grouped into five categories: rail yards, mechanical maintenance facilities, maintenance-of-way bases, back shops, and large stations.
Administrative Working Space	Includes all office space not attached to a yard, station, or other Amtrak facility.

![](_page_17_Figure_2.jpeg)

Figure 1 shows the approximate percentage that each facility group contributes to the overall total Scope 1 and 2 GHG emissions for 2013. The operation of rolling stock, including locomotives and passenger cars, is by far the largest contributor to Amtrak's Scope 1 and 2 emissions (approximately 80 percent). The largest sources of emissions are diesel and electric locomotives, contributing approximately 60 percent and 20 percent to Amtrak's total GHG emissions, respectively.

In addition to GHG information, Amtrak also reports energy consumption by fuel and energy type through CDP. Furthermore, as a part of its GHG inventory, Amtrak estimates emissions from ozone depleting substances (ODS). Amtrak uses various ODS throughout its operations; however, the most common refrigerants used are R22, R134a, and R11. Table 4 includes data for energy consumption by type converted to megawatt hours (MWh) for comparison purposes.

#### Table 4: Energy Consumption by Type

Energy Type	Total MWh for 2013
Diesel Fuel and Heating Oil	2,518,633
Gasoline	90,763
Propane	2,310
Kerosene	1,381
Vehicle CNG	0.76
Biodiesel	3.83
E85	229
Natural Gas	132,602
Electricity	845,981
Steam	21,672

As noted above, Amtrak's largest source of emissions is from diesel fuel and results from the combustion of fuel in the engines of our locomotives. Table 5 provides estimates for emissions of criteria pollutants and hydrocarbons from Amtrak's diesel locomotives.

#### Table 5: Air Emissions of Criteria Pollutants and Hydrocarbons

Emission Type	Total Emissions (metric tons)
PM <sub>10</sub>	425.51
Hydrocarbons	700.54
NO <sub>x</sub>	13,680.12
Carbon Monoxide	1,714.50
SO <sub>2</sub>	33.53

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![](_page_18_Picture_7.jpeg)

# ENERGY, FUEL AND CLIMATE

### SUMMARY OF METRICS

As a signatory of the APTA Sustainability Commitment, Amtrak reports on a number of metrics, including GHG emissions, energy consumption, and environmental management performance. These metrics help us to better understand our performance on a year-over-year basis and provide useful data for establishing energy and environmental goals. Table 6 outlines key metrics and provides a comparison between 2012 and 2013 data. We are reporting these metrics on a calendar year basis (except where noted) to align with our third-party verified GHG inventory reporting for 2013.

#### Table 6: Key Energy and Environmental Metrics and Year-over-Year Results

Metric	2012 Result	2013 Result	Annual Change
Total Electricity Consumption (kWh)	874,087,557	845,981,306	-3.2%
Electricity - Traction (Electric Locomotives) (kWh)	549,318,720	525,127,185	-4.4%
Electricity - Non-Traction (Facilities) (kWh)	324,768,837	320,854,121	-1.2%
Total Locomotive Diesel Fuel (gallons)*	63,952,812	63,872,590	-0.13%
Total GHG Emissions (metric tons CO <sub>2</sub> e)	1,086,286	1,099,662	1.23%
Metric Tons GHGs/million passenger miles	159.93	161.48	0.97%
Metric Tons GHGs/million seat miles	94.07	93.22	-0.90%
Environmental Audit Score**	76.8	84.9	+8.1

\*For the purpose of calculating GHG emissions, Total Locomotive Diesel Fuel includes diesel fuel used by revenue trains, as well as that used in yard (switcher) locomotives and other work equipment, as well as locomotive diesel fuel purchased from host railroads.

\*\* Annual environmental audit performance is reported on a fiscal year (FY) basis. These data represent FY 2012 and FY 2013.

In 2013, Amtrak began reporting our overall strategy, risks, opportunities, and financial implications related to climate change to the CDP. The process for disclosing information to the CDP requires discussion among various departments and groups within the corporation that are responsible for activities that affect climate change (primarily GHG emissions). Our inaugural CDP response addresses Amtrak's climate change impact as well as our preparedness for the impacts of climate change on our infrastructure and operations.

Since more than 90% of Amtrak's GHG emissions come from diesel and electric locomotives and the energy used at stationary facilities, our GHG reduction initiatives have historically focused on fuel and energy conservation. These efforts have been led by leaders from all of our internal groups and departments to ensure broad participation across our organization as we seek to build a culture of energy and GHG conservation.

With regard to electricity consumption reduction initiatives, our Utilities Management Group oversaw several significant lighting upgrade projects in 2013 including:

- Installation of approximately 1700 energy efficient fixtures, including several pilot programs using LED technology;
- Installation of lighting sensor controls for 500 fixtures which turn off lights when an area is not being used by employees; and
- Removal of 200 fixtures in areas that were determined to be over-lit.

These energy efficiency projects will realize a cumulative projected yearly reduction of 3,000,000 kWh and cost savings of \$285,000, with a payback period of less than two years. Further lighting efficiency projects are planned at additional facilities across the Amtrak network in 2014 and beyond.

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## 2013 LIGHTING UPGRADE PROJECTS

# Smarter, Cheaper, and Cooler by a Mile: Keeping Passengers Cool and Saving Energy at Penn Station New York

New York's Penn Station is Amtrak's busiest and the nation's largest passenger train station, serving more than three guarters of a million passengers per day on multiple railroads including Amtrak, MTA, and NJ Transit. It takes a lot of power to keep this massive landmark cool enough to beat the New York City summer heat, which requires an efficient and powerful chiller plant. In 2013, Amtrak finished installing a new chiller plant which greatly improved New York's Penn Station cooling system. This project replaced an old chiller plant that was first installed when Penn Station was rebuilt in 1963. After 50 years of service, the plant was no longer efficiently meeting the cooling needs of the station. The new plant saves more than 760,000 kilowatt hours (kWh) of electricity per year, with estimated annual savings of \$122,000 due to various controls and system improvements that increase efficiency and reduce energy use.

The main function of the chiller plant is to cool the nearly three quarters of a million people who pass through Penn Station every day. The plant supplies chilled water to about 170 airhandling units, including everything from office air conditioning systems to Penn Station's air compressors. The air compressors are important to the operation of track switches, and the chilled water helps remove humidity from the compressed air supply to the switches, preventing corrosion and potential frozen switches in the winter months. With a more reliable system that ultimately helps keep track switches operating and trains coming in and out of Penn Station, these chillers are contributing to Amtrak's social and environmental sustainability.

The new plant incorporates a number of sophisticated design and engineering features that enhance operational efficiency, reliability and safety, energy efficiency, performance monitoring, and both commuter and employee comfort, all contributing to Amtrak's social, environmental, and economic sustainability. In addition to saving on operating costs, Amtrak was able to capitalize on an incentive program offered by the New York State Energy Research and Development Authority for this energy reduction project. One of the many environmental benefits associated with this new chiller plant is its utilization of refrigerants with lower Global Warming Potentials as compared to the older, less efficient system.

![](_page_21_Picture_5.jpeg)

Out with the old.

![](_page_21_Picture_7.jpeg)

In with the new! Chiller Plant at Penn Station, New York

![](_page_22_Picture_1.jpeg)

### CHANGES TO THE HVAC SYSTEM

Amtrak's Fuel Management Group leads our efforts in reducing our transportation-related fossil fuel consumption and GHG emissions. Reductions in transportation-related consumption were realized by shutting down locomotives when they were out of service for an hour or more when the temperature was above 40° F. In 2013, Amtrak focused on the use of Automatic Engine Stop Start technology in our locomotives, and increasing the use of ground power by trains at layover locations and in maintenance facilities rather than relying on their diesel engines to supply power.

Other energy reduction projects completed in 2013 include a retro-commissioning of Chicago Union Station's HVAC system that involved the installation of high efficiency controls and motors. Three compressed air audits were also completed at this facility, resulting in the repair of 120 leaks. The changes to the HVAC system in Chicago Union Station will result in a projected usage reduction of 1,169,017 kWh and cost savings of \$126,948 annually, with a project payback period of one year. The repaired leaks resulting from the compressed air audits are projected to realize a reduction of 1,000,000 kWh in electricity and an annual cost savings of \$165,000.

![](_page_22_Figure_5.jpeg)

**REPAIRED LEAKS** 

# **Putting the Brakes on Fuel Consumption**

120

2/1

Amtrak's Transportation Department implemented a successful campaign in 2013 to reduce power braking by locomotive engineers in Amtrak's Southern Division, which is now being rolled out in our operations across the country. Improved train handling techniques to reduce energy consumption are promoted in locomotive engineer training and re-certification classes. We continue to conduct research on innovative technologies that will further optimize engineer train handling.

1

![](_page_24_Picture_0.jpeg)

New GenSet locomotive at Amtrak's Chicago Yard

Over the past several years, the Environment and Sustainability Group has worked closely with the Mechanical Department to obtain grants for the procurement of energy-efficient GenSet locomotives to replace older diesel locomotives at our rail yards in urban areas. In 2013, GenSet locomotives were in operation at Amtrak yards in Los Angeles and Oakland, California, and two GenSets were delivered to Chicago, Illinois. Unlike older locomotives that have one large engine that idles continuously when in service, each GenSet has two smaller, independently-controlled engines that shut down when not needed. This engine configuration helps lower fuel consumption requirements. In 2014, we expect to put into service two GenSet locomotives at our Chicago, Illinois rail yard, and two locomotives at the Washington, DC yard will be refurbished to have their engines replaced with GenSets. Compared to the typical older locomotive engines in service at Washington Union Station, the new GenSet engines will require approximately 50% less fuel and will significantly reduce pollutant emissions.

Amtrak's infrastructure in the NEC suffered significant impacts from Superstorm Sandy in 2012. In the wake of this extreme storm, Amtrak began developing a climate change strategy to strengthen resilience and reduce the effects of climate change on our infrastructure and railroad operations. For example, Amtrak began evaluating our current design standards to account for sea-level rise. A rise in sea-level will increase the likelihood of flooding to critical Amtrak infrastructure including track beds, substations, and stations which may lead to increased operational costs and service disruptions. Additionally, as part of its mission to manage and plan Amtrak's infrastructure needs in the NEC territory, Amtrak has recognized the need to evaluate methodologies to assess climate-related impacts, risks, and opportunities in planning for infrastructure improvements.

Amtrak launched two risk-focused initiatives in 2013, as described in the <u>Economic section</u> of this report. Both of these initiatives are enterprise-wide and include all objectives and risks relevant to Amtrak, including strategic, operational, financial, and compliance-related risks. We consider climate change, environmental, sustainability, energy, and other related risks to be relevant for each category of objectives, and we will assess and manage these risks as part of these processes.

# Solar Blue Lights: Eliminating Toxic Waste in the Southwest

Amtrak uses solar-powered "blue lights" at several facilities in its Southwest region, including facilities in California, Texas, New Mexico, and Oklahoma. The lights are part of a safety system called "Blue Flag Protection" that is designed to alert personnel working on and around the railroad tracks of the status of trains. Before the installation of solar-powered lights, the former battery-operated blue flags resulted in the generation of a large amount of battery waste as they required frequent replacement. Furthermore, high costs associated with recycling and/or disposing the batteries were incurred. Once new solar lights were installed on the tracks, the initial cost of the lights was recovered in a very short time. Over the long term, the project will achieve continued savings in maintenance costs and will eliminate the costs for replacement toxic waste stream.

![](_page_26_Picture_0.jpeg)

![](_page_26_Picture_1.jpeg)

# WASTE REDUCTION AND RECYCLING

### WE RECYCLE

At Amtrak, we strive not only to reduce waste, but also to recycle wherever possible. Like many corporations, we generate both industrial materials and municipal-type wastes. These two very distinct waste streams require different approaches in how we manage and track data and require the establishment of different goals.

Amtrak mechanical and engineering maintenance facilities recycle industrial materials generated through train repair and upgrades, track repair and routine maintenance. These materials include steel parts such as wheels and axles, scrap steel, other metals (such as brass and aluminum), used oil, and other materials such as polycarbonate windows and mattress foam. The amount of materials generated depends on the volume of maintenance work and capital improvements undertaken in a given year. Amtrak has established vendor contracts for recycling of these materials and tracks the quantities recycled each year. Our goal is to continue to identify recycling opportunities for additional materials, such as the seats from train cars when they reach the end of their useful lives and can no longer be refurbished.

Municipal-type materials are handled differently than industrial materials for recycling. The amount of these materials, such as beverage containers and all types of paper, is hard to predict since much of it is generated by our passengers. The waste removed from our trains is handled at our stationary facilities (stations and maintenance yards) along with the municipal-type wastes generated at those facilities. These waste streams and

recycling quantities are tracked on a facility-specific basis and are reflected in the facility totals. The vendor contracts for pickup of municipal wastes have typically been established on a local basis. Amtrak does not currently possess a mechanism for centralized tracking of these waste streams; however, we are exploring the means to do so.

Our corporate goal for municipal waste streams for 2013 was to centralize data collection and establish a reliable baseline for municipal solid waste amounts and recycling rates. This will allow us to set performance improvement targets and track waste diversion rates for our onboard recycling program and the recycling that occurs at our offices, stations, and maintenance facilities. To begin the process of centralizing data to better manage these waste streams, Amtrak contracted with a national firm in August 2012 to manage, report, and optimize all waste accounts for municipal materials. This is the same data management service that has been used to manage Amtrak's other utility accounts (e.g. electricity, natural gas, and steam) since 2007.

During the first year of the data centralization program (2013), a total of 101 waste accounts were entered into the waste management tracking system. These accounts cover all of Amtrak's largest owned and operated facilities. We estimate that these accounts comprise 85 to 90 percent of the municipal waste materials that our facilities generate. Additional accounts will be added in future years, as we increase our understanding of our waste diversion rates at a national level. The first full year of data will be used to establish baseline metrics for municipal solid waste amounts with the goal of accounting for the amount disposed and the amount recycled.

Table 7 highlights the industrial and municipal-type materials that were recycled in 2012 and 2013.

#### **Table 7: Industrial and Municipal Materials Recycled**

INDUSTRIAL MATERIALS TOTALS - TONS EXCEPT WHERE NOTED		
	CY 2012	CY 2013
Steel Parts and Equipment	2,621	2,409
Scrap Metal / Steel	2,532	2,435
Cable / Wire	55	35
Other metals (copper, brass, aluminum)	257	160
Batteries (lead-acid)	84	85
Mattress Foam	6	7.6
Windows	24	11.2
Plastic Drums	6	8.5
Wood Scrap / Pallets	72	92
Used Oil - gallons	186,614	206,061
All Industrial Materials Recycled - tons (excludes used oil)	5,657	5,242
MUNICIPAL MATERIALS		
	CY2012	CY2013
Commingled materials*	1,454	1,406
Office paper	467	538
Mixed paper**	127	137
Cardboard	188	1,717
All Municipal Materials Recycled - tons	2,236	3,798

\*Commingled materials include mixed plastic, aluminum, glass, paper, and cardboard collected at Amtrak facilities and through our onboard recycling program.

\*\*Mixed paper includes all types of paper collected as a mixed stream, excluding office paper that is collected separately.

![](_page_28_Picture_0.jpeg)

Engineering Department at Penn Station New York Minimizes Solder Waste:

# Moving from hazardous waste disposal off-site to total closed-loop in-house recycling

Amtrak's Engineering Department at our Penn Station New York rail yard fabricated a "Lead Soldering Station" that was put into operation in 2013. Prior to the implementation of this station, lead solder drippings (slag) produced from facility operations had to be handled as hazardous waste when collected from wood and concrete surfaces. This hazardous waste had to be containerized and disposed of through a hazardous waste hauler. The design of the new soldering station at Penn Station ensures that all slag remains on a new stainless steel bench top or drops to a catch tray which allows for its collection and reuse. This system allows Amtrak to eliminate this waste stream in our Engineering division by recycling the material for reuse in-house. The innovative thinking behind this measure has reduced the production, transportation and disposal of hazardous waste at Penn Station, resulting in cost savings as well as reduced environmental compliance risk by eliminating one of the facility's Hazardous Waste Satellite Accumulation Areas. This enhancement helps Amtrak in achieving its Financial Excellence strategic goal and improves the safety of our employees that work in and around our rail yards by reducing their exposure to hazardous waste.

In addition to the environmental benefits associated with this innovation, the solder table makes use of clamps to hold work pieces during soldering, allowing employees to use both hands. This provides a safer work environment and minimizes the amount of solder used, improving both efficiency and productivity.

![](_page_29_Picture_0.jpeg)

### ONBOARD RECYCLING PROGRAM

Passengers sometimes ask, "Why don't I see more recycling containers aboard Amtrak trains?" Most Amtrak passenger cars have been in service for many years. Traditional passenger car designs included only one or two waste receptacles in each car, and typically lacked any form of dedicated recycling containers. In order to raise our capacity for waste management onboard our passenger cars, we are in the midst of a multi-year effort to meet our goal of providing a recycling receptacle in every Amtrak passenger car. This continues our evolution toward improving onboard waste diversion. Between 2008 and 2010, an existing trash can was relabeled for recycling in every café and dining car in the Amtrak fleet, so that all trains with food service provide for recycling of food and

![](_page_29_Picture_3.jpeg)

beverage containers.

In 2013, we completed the design and installation procedures for new recycling containers to be installed in each Superliner I passenger car. Superliner cars are bi-level cars in long distance service on several Amtrak routes throughout the country. We evaluated vendors and inhouse capabilities and determined that Amtrak's Beech Grove, Indiana Mechanical shop could build the containers quickly and cost-effectively. The Amtrak Mechanical Department also determined that they could utilize their field locations to install the containers as trains come through frequently for routine maintenance. This will greatly shorten the installation time for the whole fleet of Superliners from four years (the typical overhaul cycle) to less than two years. By the end of 2014, passengers in all areas that we serve should see these new containers in service in our passenger cars. Furthermore, our design engineers are already at work on design and planning the installation of recycling containers for the other types of passenger cars in the Amtrak fleet.

![](_page_30_Picture_0.jpeg)

Single-Use Styrofoam ice chests packaged for delivery to a recycling facility.

# **Recycling and Source Reduction Project on Long Distance Trains**

Until recently, Styrofoam ice chests were used in the sleeping cars of Amtrak long distance trains to provide fresh ice to passengers during their trip. Due to food safety regulations, these ice chests were single-use containers that had to be disposed of at the end of each trip and could not be reused. The Amtrak Environment and Sustainability Group identified a recycling center to recycle the Styrofoam, and worked with other Amtrak departments to develop a long-term solution that would be more economical and more sustainable. This internal collaboration has enabled us to develop a new procedure for delivering ice from the food service car aboard trains that will eliminate the use of Styrofoam ice chests on all Amtrak long distance routes.

![](_page_30_Picture_4.jpeg)

![](_page_31_Picture_0.jpeg)

# ENVIRONMENTAL COMPLIANCE

Amtrak had no significant fines or non-monetary sanctions for non-compliance with environmental laws and regulations in 2013.

In 2013, Amtrak recorded a total of 81 environmental incidents involving a spill of operational fluids, including equipment leaks and accidental spills. All spills were cleaned up and remediated as necessary by Amtrak employees or an environmental contractor managed by Amtrak, and residual materials were disposed of in accordance with environmental regulations. Of these spills, 43 were reported to federal, state, or local environmental agencies based on regulatory reporting thresholds. There were only two spills greater than 100 gallons, while 72 percent of spills were of volumes below 25 gallons.

The Environment and Sustainability Group tracks each spill from initial report to final cleanup, allowing us to appropriately manage these events and look for opportunities to reduce the risk of spills in the future. Of the 81 incidents that occurred in 2013, the majority

![](_page_31_Picture_5.jpeg)

(62) were spills of petroleum products. Eight were spills of non-petroleum oils, and 11 were spills of non-oily materials such as industrial wastewater, sewage, and battery acid. Amtrak routinely trains operating employees on proper material handling techniques as well as spill cleanup procedures in order to reduce spill incidents and impacts.

# **Environmental Audit and Assessment Program**

Over the course of fiscal year 2013, 20 environmental compliance audits were performed at Amtrak facilities as part of the Amtrak Environmental and Sustainability Management System. The average Environmental Audit Score was 84.9, which was above the corporate goal of 83. The environmental audit program measures performance against regulatory and management standards, reports findings of nonconformance, and devises and implements corrective action plans (CAP) so that a facility with any issues can address them promptly and transparently. The audit program currently includes 32 large and medium facilities that are audited on a biennial basis unless an unsatisfactory score is received, in which case a follow-up audit may be conducted the following year.

In addition to the environmental compliance audits, 45 Small Facility Assessments were performed as part of the Amtrak ESMS. These assessments are designed to evaluate facilities and operations that present a lower environmental risk than sites included in the Audit Program, and they utilize protocols designed to assess basic compliance. As with environmental audits, these assessments require the Responsible Amtrak Official (RAO) for the facility to develop a CAP for all issues identified, and to provide regular reports until all findings are closed.

CANAL ST. E CTA BUSES

# Environmental Improvements to Trainwash Facility in Hialeah, Florida

In 2013, Amtrak completed repairs and upgrades to the Hialeah trainwash facility. This trainwash is subject to Florida Department of Environmental Protection regulations for stormwater and wastewater discharges. Upgrades included extending the length of the wash water containment pad to contain the sprayed wash water and prevent wash water "carryout" from the blower area onto unpaved ground, reducing the risk of contaminants from the washing operation entering the soil or contaminating groundwater.

![](_page_33_Picture_2.jpeg)

**BEFORE** Trainwash at Amtrak facility in Hialeah, Florida

AFTER Trainwash at Amtrak facility in Hialeah, Florida

![](_page_33_Picture_5.jpeg)

![](_page_34_Picture_0.jpeg)

![](_page_35_Picture_0.jpeg)

# EMPLOYEES AND EMPLOYEE PROGRAMS

### WORKFORCE COMPOSITION

To maintain and operate the nation's intercity passenger rail network, Amtrak employs more than 20,000 people in a variety of roles.

We are committed to being an equal opportunity employer, and we adhere to all labor and employment laws in the jurisdictions in which we operate. Information on our workforce demographics is shown in Table 8.

![](_page_35_Picture_5.jpeg)

![](_page_35_Picture_6.jpeg)

#### **Table 8: Workforce Composition**

WORKFORCE COMPOSITION BY EMPLOYMENT TYPE		
Employment Type	Employees	Employee %
Union	17,864	76.10%
Management	2,948	12.13%
Contractor	2,761	11.76%
Grand Total	23,473	100%
WORKFORCE COMPOSITION BY VETERAN STATUS		
Veteran Status	Employees	Employee %
Non-Veteran	19,591	83.46%
Undisclosed	2,991	12.74%
Veteran	891	3.80%
Grand Total	23,473	100%
Gender	Employees	Employee %
Male	17,923	76.36%
Female	5,225	22.26%
Unspecified	325	1.38%
Grand Total	23,473	100%
WORKFORCE COMPOSITION BY GENDER AND EMPLOYI	MENT TYPE	
Gender	Employees	Employee %
Male	17,923	76.36%
Union	13,821	58.88%
Contractor	2111	8.99%
Employee	1991	8.48%
Female	5,225	22.26%
Union	4,043	17.22%
Employee	857	3.65%
Contractor	325	1.38%
Unspecified	325	1.38%
Contractor	325	1.38%
Grand Total	23.473	100%

Amtrak has 12 labor unions and they all support Amtrak's Safe-to-Safer initiative. More information about the Safe-to-Safer program can be found in the <u>Safety and Security section</u> of this report.

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### **EMPLOYEE PROGRAMS**

![](_page_37_Picture_1.jpeg)

### The Amtrak Employee Wellness Program

The Amtrak Employee Wellness Program continued to engage employees in 2013 by offering confidential onsite biometric screenings and online health assessments, hosting flu shot clinics, and offering an incentive program that awards gift cards for staff participation. The Wellness Program organized a "Keep Walking" challenge that distributed pedometers to employees, enabling them to keep track of the number of steps that they walk and providing rankings through electronic reporting software. This initiative challenged employees to meet a corporate-wide goal for steps logged and promoted the creation of employee teams that fostered a sense of camaraderie.

### Association of American Railroads Environmental Awards

The Association of American Railroads Environmental Awards provide recognition to an individual railroad employee who has demonstrated outstanding performance in the areas of environmental awareness and responsibility during the award year. In 2013, Sandra Yan of Amtrak's New England Division was the Amtrak Nominee for the Professional Environmental Excellence Award in recognition of her exemplary performance in advancing sustainable solutions and creatively and tenaciously ensuring environmental compliance. Also in 2013, Renee Strolis, the Director of Fuel Management, was Amtrak's nominee for the John H. Chafee Environmental Excellence Award for her role in leading Amtrak's fuel management and fuel reduction initiatives.

![](_page_37_Picture_6.jpeg)

Renee A. Strolis, Amtrak nominee for AAR Chafee Award for environmental excellence.

# Promoting Healthy Food Choices through a Farm Share Program in Philadelphia

on the Valley Group

FARM SHARE

Employees at our Philadelphia 30th Street Station and their families enjoyed fresh fruits and vegetables delivered right to the station in 2013 by signing up for a local Farm Share program through Amtrak. The Delaware Valley Farm Share is a program of Common Market, a distributor of sustainable food from local family farms. Their mission is to strengthen regional farms while making local produce accessible to communities and the institutions that serve them, including schools, hospitals, universities, grocery stores, and workplaces. The 30th Street Station Farm Share site was coordinated by a local Amtrak employee, who made sure that all the participants received their delivery every other week during summer and fall. Many of the Amtrak participants enjoyed the summer produce so much that they signed on for the winter share, which included squash and pumpkins, honey, and even locally made flour and bread.

37

![](_page_39_Picture_0.jpeg)

![](_page_39_Picture_1.jpeg)

# SAFETY AND SECURITY

2013 was the fourth year of Amtrak's Safe-2-Safer program. Safe-2-Safer is a multiyear riskreduction approach to safety and security that aims to reduce injuries by creating a more collaborative environment and to bridge gaps between departments, as well as labor and management across the company. This behavior-based program complements our existing safety programs by fostering training, coaching, and greater accountability for supervisors, and broader employee engagement through peerto-peer feedback. In 2013, the program had an overall employee contact rate of 55 percent with a total of 96,145 peer-to-peer safety observations performed by employees.

The Amtrak Police Department (APD) provides law enforcement support and security throughout Amtrak operations. In 2013, the APD continued working to improve employee safety and security awareness by designing and distributing numerous print publications that describe methods for determining suspicious activity and crime, and provide employee safety tips.

In April, the APD distributed information to all Amtrak employees to raise awareness of human trafficking, which included the delivery of a web-based human trafficking training program for our staff. The APD also participated in the Blue Campaign, a US Department of Homeland Security (DHS) campaign to end human trafficking, and attended a stakeholder event of the DHS Council on Combatting Violence Against Women in Washington, DC. Amtrak's Police Department continues to be an active partner in supporting the DHS in its efforts to end human trafficking.

We also worked with multiple federal, state, local, rail, and transit agencies in 2013 to conduct nine Operation RAILSAFE deployments, which are exercises designed as simulations for counterterrorism and incident response capabilities at passenger stations and along the right of way.

On October 16, 2013, the APD launched the "Txt-a-Tip" program, a new method for passengers and employees to report suspicious activity, crime, or emergencies via SMS text messaging. This initiative is part of a continued effort by Amtrak to provide additional communication options, particularly for passengers and employees who are deaf or may have hearing loss, allowing easy and efficient communication of emergency information to the APD.

In 2013 the newly formed Amtrak Emergency Preparedness and Corporate Security Department also began implementing a security risk management strategy to address threats and vulnerabilities associated with natural hazards and acts of terrorism. This includes a framework for video surveillance of rail assets, installing secure videoconferencing systems, and developing training programs for security awareness. The group also considered ways to integrate this strategic goal into Amtrak operations in the upcoming year.

### **OPERATION LIFESAVER**

The Operation Lifesaver (OL) program started in 1972 when the average number of collisions at U.S. highwayrail grade crossings had risen above 12,000 incidents annually. Today, OL's network of authorized volunteer speakers and trained instructors offers free rail safety education programs in fifty states. The organization delivers presentations to more than one million people each year including school groups, driver education classes, community audiences, professional drivers, law enforcement officers, and emergency responders. The goal of the organization is to promote education, enforcement, and engineering to end collisions, deaths, and injuries at highway-rail grade crossings and on rail properties nationwide.

Amtrak has a long history of participating in OL and has helped to deliver its safety message to thousands of people through special railroad events, internal and external training activities, and presentations conducted by Amtrak employees. To date, nearly 100 Amtrak employees have been trained as OL presenters or volunteers. Together, they have helped spread the word about trespassing and grade crossing safety to dozens of civic organizations, first responder classes, transportation groups, and school age children nationwide.

Amtrak consistently contributes funding to Operation Lifesaver to sustain and support its short and long term projects and programs. Amtrak has also partnered with OL for major national events such as National Train Day to promote rail safety. OL volunteers and state coordinators are provided free travel on Amtrak trains to attend OL events, meetings and conferences where safety strategies are developed and implemented. Amtrak has created a dedicated position of Operational Lifesaver Specialist to act as a liaison between all partners and outside stakeholders committed to reducing the number of grade crossing and trespasser incidents.

![](_page_40_Picture_7.jpeg)

# STATION INITIATIVES

In 2013, Amtrak participated as a partner and/or stakeholder in the design and construction of new stations and improvements to existing stations in ways that incorporate sustainability criteria in multiple communities.

Designs for new facilities incorporate many green building elements that will qualify projects for the US Green Building Council's Leadership in Energy and Environmental Design (LEED) ratings, whether or not the project sponsor seeks LEED certification. LEED is a green building certification program that recognizes best-in-class building strategies and practices. To receive LEED certification, building projects must satisfy prerequisites and earn points to achieve different levels of certification. Amtrak developed criteria for externally sponsored design-build projects that incorporate requirements for sustainability. The Review Requirements for Design-Build Projects was issued for the New York State Department of Transportation's 2013 procurement for design-build services for our new Rochester, New York Station. The new ARTIC Station in Anaheim, California, designed for LEED

Platinum certification (the highest LEED designation that can be achieved) was under construction in 2013 for scheduled completion in the fall of 2014.

The 2013 re-opening of the central waiting room and Compass Room entrance of the City of Seattle's King Street Station completed a five-year project whose improvements include seismic strengthening upgrades and features that use renewable energy, reduce operating costs, and lower the building's overall carbon footprint. King Street Station is expected to receive LEED Platinum certification. Amtrak's Facilities Development team incorporated additional recommendations for sustainable design in the update to the Amtrak Station Program and Planning Guidelines issued on May 1, 2013.

![](_page_41_Picture_5.jpeg)

Seattle King Street Station waiting room before renovations

![](_page_41_Picture_7.jpeg)

EARTH DAY PROGRAMS

Amtrak has committed to sharing our journey to sustainability with our employees, passengers, and members of local communities. The APD headed efforts to develop environmental awareness by leading a cross-functional team to conceptualize, plan, and deliver Earth Day events at Philadelphia 30th Street Station and Washington Union Station in April 2013. The APD coordinated participation of environmental organizations in both events by fostering partnerships between Amtrak, the Environmental Protection Agency, Earth Day Network, and numerous other local organizations. These environmental fairs offered an opportunity to represent Amtrak among a group of government and non-government agencies and small businesses that participated in these events to share environmental educational material and promote environmental programs or products.

Seattle King Street Station waiting room following renovations

# ACCESSIBILITY AND CONNECTIVITY

Building on our current base of services, networks and features, we will be enhancing accessibility and connectivity through 2014 and beyond.

Tables 9 through 11 provide information on enhancements completed or in progress in 2013. In future years we will report on annual improvements that we make to improve accessibility and connectivity for our passengers.

DESIGNS THAT PROGRESSED		
Count	Station	
1	Staunton, VA	
2	Prince, WV	
Total	2	
DESIGNS CC	OMPLETED	
Count	Station	
1	Ontario, CA	
2	Palm Springs, CA	
3	Victorville, CA	
4	Sanford, FL	
5	Gainesville, GA	
6	Savannah, GA	
7	Alliance, OH	
8	Bryan, OH	
9	Camden, SC	
10	Lorton, VA	
Total	10	

#### Table 9: Design Work Completed in Fiscal Year 2013

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### Table 10: Construction Work Completed in Fiscal Year 2013

CONSTRUCTION THAT PROGRESSED		
Count	Station	
1	Dyer, IN	
2	Amsterdam, NY (station interior only)	
3	Port Kent, NY	
4	Ticonderoga, NY	
5	Whitehall, NY	
6	Randolph, VT	
7	St. Albans, VT	
8	Waterbury, VT	
Total	8	
CONSTRUCT	ION SUBSTANTIALLY COMPLETED	
Count	Station	
1	Guadalupe, CA	
2	Lompoc-Surf, CA	
3	Needles, CA	
4	Redding, CA	
5	San Luis Obispo, Ca	
6	Stockton, CA	
7	Renssalear, IN	
Total	7	

# Table 11: Contracts Awarded for Station Improvements inFiscal Year 2013

Count	Station
1	Dyer, IN
2	Rensselaer, IN
3	Amsterdam, NY (station interior only)
4	Port Kent, NY
5	Ticonderoga, NY
6	Whitehall, NY
7	Randolph, VT
8	St. Albans, VT
9	Waterbury, VT
Total	9

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### AMTRAK - ACCESSIBLE FOR ALL

In 1990, Congress passed the Americans with Disabilities Act (ADA), which required intercity rail stations to be accessible to persons with disabilities. Amtrak is proud to serve as an important mode of travel for people with disabilities. Working with other station stakeholders, we are committed to ensuring that stations are accessible to all of our passengers.

In February 2009, as required by the Passenger Rail Investment and Improvement Act of 2008, Amtrak provided a plan to Congress to achieve ADA compliance by September 30, 2015. ADA compliance includes updating restrooms, ticket windows, water fountains, signage, entry doors, egress pathways, and Passenger Information Display Systems (PIDS) that provide visual and audio announcements. Outdoors, ADA compliance extends to the design of platforms, PIDS, signage, parking stalls and accessible routes to include curb cuts, ramps, and doorway widths.

![](_page_44_Picture_3.jpeg)

#### Ultimately, accessibility

improvements benefit all Amtrak passengers by eliminating barriers to travel. Improvements such as level boarding have made it easier for persons with wheeled mobility devices to board the train, along with the elderly, families with children, and passengers with heavy bags. Ongoing work to remove barriers to travel in the parking lot, in and around the station, and on the platform will help ensure that America's intercity passenger rail system is accessible to everyone.

### AMTRAK THRUWAY SERVICE EXTENDS THE REACH OF OUR RAIL NETWORK

As the United States' intercity passenger rail service provider, Amtrak connects more than 500 destinations in 46 states and three Canadian provinces. Amtrak "Thruway Service" extends the reach of our transportation network to destinations not directly served by intercity rail, giving passengers greater connectivity and more travel options. Most connections are operated by intercity buses, but some routes are operated by vans, taxis, commuter (regional) trains, and ferries. In most cases the connection to the Thruway Service is provided at Amtrak stations.

The arrangements for these co-modal services vary by route. Amtrak does not operate buses directly, but contracts for services on its behalf or enters into ticketing agreements with other operating companies. In some cases, Amtrak provides a "dedicated" bus connection, meaning that the bus route is contracted by Amtrak to be used on its behalf exclusively for connecting to and from Amtrak trains. In other cases, the connecting Thruway Service is with another carrier, where Amtrak passengers are carried over typical scheduled line service. Many of the Thruway routes are supported by state governments, often to improve access to intercity transportation in rural areas and to increase ridership on trains that are financially supported by the state.

In a few instances, bus service also offers supplemental frequencies to rail service, allowing more departure options for a given itinerary than could be achieved using just passenger rail.

![](_page_45_Figure_0.jpeg)

### AMTRAK AIRPORT CONNECTIONS

Amtrak intercity trains provide direct connections to several airports in the United States. Along the densely populated Northeast Corridor, Amtrak serves the BWI Thurgood Marshall Airport Station (serving Baltimore and Washington DC) and the Newark Liberty International Airport Station (serving the New York metropolitan area). Both airport stations are also served by frequent commuter train services. Additionally, the corporation has agreements that allow airline passengers at Newark airport to connect with Amtrak trains between Newark and Philadelphia (approximately 80 miles apart), reducing the need for short-haul feeder flights.

Outside the Northeast Corridor, Amtrak has airport stations in Milwaukee, Wisconsin, and Burbank, California.

![](_page_45_Picture_4.jpeg)

Many other airports have local rail connections to intercity trains. Travelers can reach the airport by connecting from intercity trains to local transit providers. Given that several Amtrak routes pass through rural areas with limited transportation alternatives, the connectivity provided by the intercity train to a metropolitan airport is often the only public transportation access to an airport for a significant portion of the population.

### **BIKES ON BOARD**

In an effort to improve Customer Service and connect multiple modes of transportation, in 2013 Amtrak staff created a prototype to allow customers to store bicycles more easily in the baggage cars of our trains. Previously, bicycles were required to be stored in bicycle boxes, which incurred additional costs for customers traveling with bicycles and made the bikes more difficult for passengers to load. The new prototype allows the bicycles to be stored securely and wheeled easily onto the train.

New bicycle storage

![](_page_46_Picture_0.jpeg)

Contractor installs length of steel conduit along a railroad bridge to carry new signal, power, and communication cables over a waterway.

![](_page_46_Picture_2.jpeg)

Amtrak personnel install a manhole to provide access to newly installed buried cables.

![](_page_46_Picture_4.jpeg)

Amtrak personnel install a manhole to provide access to newly installed buried cables.

# Expanding Access New Haven-Hartford-Springfield Rail Corridor Improvements

Beginning with the replacement of existing signals, communications, and electric power infrastructure, Amtrak initiated a multi-year project to improve rail infrastructure along the New Haven-Hartford-Springfield corridor with the goals of increasing both the speed and frequency of rail service along this 62-mile corridor that connects New Haven, Connecticut and Springfield, Massachusetts.

Funded by the State of Connecticut through a grant from the Federal Railroad Administration's High-Speed Intercity Passenger Rail Program, the project will include the replacement or restoration of approximately 35 miles of track which will be realigned to support speeds of up to 110 miles per hour, the repair or replacement of numerous bridges and culverts, improvements to existing stations, and the construction of new stations. Aligned with Amtrak's strategic goals of Customer Focus, Financial Excellence, and Safety and Security, this work will introduce commuter rail service along the corridor and support enhanced Amtrak intercity passenger rail service.

![](_page_47_Picture_0.jpeg)

# ECONOMIC PERFORMANCE PROFILE

Amtrak reports its financial performance through Monthly Performance Reports and through its annual consolidated financial statements which are released on a fiscal year basis.

These reports may be found on Amtrak's public website, <u>www.Amtrak.com</u> under the Reports and Documents tab.

Our Monthly Performance Reports document a number of key performance metrics, including ridership totals, revenue and expenses per seat mile, customer satisfaction index, and on-time performance, among others. The Monthly Performance Reports also track other indicators of Amtrak performance including seat miles, passenger miles, load factor, diesel gallons per train mile, and equipment in service (locomotive fleet and passenger fleet).

# ORGANIZATIONAL EXCELLENCE: BUSINESS REORGANIZATION

In FY 2013, Amtrak completed a significant reorganization of our operating structure. This reorganization involved the creation of three Business Lines — new operating organizations tailored to deliver services to the customers of our major service offerings with a strong focus on enhancing financial and operational performance and greater customer service by creating greater accountability for activities that impact our patrons. During 2013, to further the goals established in the Amtrak Strategic Plan, we formed three new Business Lines to manage Amtrak's operation, entitled the Northeast Corridor, State Supported Corridors, and Long Distance Business Lines.

![](_page_48_Picture_6.jpeg)

This new structure for our organization was designed to dissolve organizational silos with the

goal of driving stronger communication, collaboration, and a unified purpose across disciplines in support of the customers of our three train operating businesses. The overarching success of Amtrak will be driven by accountability of the individuals and teams that make up and support these primary business lines. Going forward, each business line will be required to create a plan with clear objectives, responsibilities and performance metrics that will guide its operation. Throughout FY 2013, extensive planning and development efforts were undertaken to ensure that these three Business Lines would be fully positioned to commence service beginning in FY 2014, which for Amtrak began on October 1, 2013.

The three new train operations business lines join the existing Northeast Corridor Infrastructure and Investment Development Business Line (NECIID), which was created in FY 2012. NECIID manages and plans Amtrak's infrastructure needs in the NEC territory from Boston, MA to Washington, DC. The NECIID organization continued to advance NEC network planning, conceptual design, and development activities, together with managing commercial partnerships, infrastructure access and funding, and financing strategies to support the future needs of Amtrak's NEC infrastructure. Through extensive dialogue with our primary customers that use Amtrak's NEC assets (the Northeastern states served by the NEC and related commuter rail operators) and the Northeast Corridor Operations Advisory Commission, NECIID has led Amtrak's ongoing participation in the Commission's efforts to negotiate appropriate cost allocation formulae for commuter and Amtrak uses of NEC shared infrastructure in accordance with Section 212 of the Passenger Rail Investment and Improvement Act (2008).

NECIID is also leading Amtrak's efforts on major Master Planning initiatives addressing the long-term needs and opportunities related to Amtrak's major stations along the NEC, including Washington, DC Union Station, Philadelphia 30th Street Station, Baltimore Penn Station, and the New York Penn Station complex. These programs will result in significantly enhanced facilities to improve railroad operations, enhance the experience of our traveling public, and create greater economic value for Amtrak.

# ENTERPRISE RISK MANAGEMENT

![](_page_49_Picture_4.jpeg)

Amtrak launched two related initiatives in 2013. The first calls for the development and implementation of an Enterprise Risk Management process. The second calls for the establishment of a Management Control Framework.

Both are enterprise-wide initiatives and include all objectives relevant to Amtrak's business, including strategic, operational, financial, and compliance objectives. The process requires evaluating climate change, environmental, sustainability, energy, and other related risks in relation to Amtrak's business objectives. The Enterprise Risk Management and Management Control Framework processes have significantly improved our risk management capabilities and will provide a foundation upon which the company can evaluate alternative controls and techniques over time to optimize operations in a manner that also contributes to the reduction of our carbon footprint.

### PHOTOGRAPHY

All images are © AMTRAK | Chuck Gomez with the exception of images used on pages 25, 29, 32, and 37.

![](_page_51_Picture_0.jpeg)

# GLOSSARY

**THE CLIMATE REGISTRY (TCR):** A nonprofit organization that is a collaboration among North American states, provinces, territories, and Native Sovereign Nations that sets consistent and transparent standards to calculate, verify, and publicly report greenhouse gas emissions into a single registry.

**THE CARBON DISCLOSURE PROJECT (CDP):** An independent nonprofit organization that holds the largest collection of self-reported corporate climate change, water, and forest-risk data. For more information, visit <u>www.cdp.net</u>.

**CARBON DIOXIDE EQUIVALENT (CO.e):** A term for describing different greenhouse gases in a common unit. For any quantity and type of greenhouse gas,  $CO_2$  e signifies the amount of  $CO_2$  which would have the equivalent global warming impact.

**ENVIRONMENTAL MANAGEMENT SYSTEM (EMS):** A system that enables the management of an organization's environmental programs in a comprehensive, systematic, planned and documented manner. An EMS can be used to support organizational efforts to meet targets for controlling environmental impacts of its activities.

**GENERAL REPORTING PROTOCOL (GRP):** Outlines the policies of The Climate Registry and the required reporting calculation methodologies for the majority of greenhouse gas emissions sources.

**GLOBAL REPORTING INITIATIVE (GRI):** Organization promoting the use of sustainability reporting as a way for organizations to become more sustainable and contribute to sustainable development. The GRI pioneered and developed a comprehensive sustainability reporting framework that is widely used around the world. The current GRI framework is known as the 'G4' Guidelines.

**GLOBAL WARMING POTENTIAL (GWP):** The relative measure of the warming effect that a particular greenhouse gas will have on the atmosphere. Global warming potential values represent the heat trapped by a mass of the greenhouse gas in question with the heat trapped by a similar mass of carbon dioxide.

**GREENHOUSE GAS (GHG):** Atmospheric gases that absorb and emit radiation, which is the process that leads to the greenhouse effect that heats the surface of the Earth. Carbon dioxide  $(CO_3)$  is an example.

**LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN (LEED):** A green building rating and certification program which was developed by and administered by the US Green Building Council.

**NITROGEN OXIDES (NO<sub>x</sub>):** Significant components of air pollution that are generated during the combustion of fuel sources including natural gas and vehicle fuel.

**OZONE DEPLETING SUBSTANCES (ODS):** Substances responsible for man-made chemical ozone depletion that are commonly used in refrigeration systems. Many are also greenhouse gases.

**PARTICULATE MATTER (PM**<sub>10</sub>): Complex mixture of microscopic solid and/or liquid matter suspended in the Earth's atmosphere. Common pollutants contained in particulate matter include acids, organic chemicals, metals, and soil or dust particles.

**PASSENGER MILES (PM):** A statistical unit denoting one mile traveled by one passenger used in measuring the volume of passenger traffic.

**SCOPE 1 EMISSIONS:** All direct greenhouse gas emissions, including emissions from stationary and mobile combustion.

**SCOPE 2 EMISSIONS:** Indirect GHG emissions from the consumption of purchased or acquired electricity, heat, or steam.

**SEAT MILES (SM):** A measure of carrying capacity equal to the number of seats available multiplied by the number of miles traveled.

**SULFUR DIOXIDE (SO\_):** A significant component of air pollution that is generated during the combustion of fuel sources including natural gas and vehicle fuel. Sulfur dioxide emissions are a precursor to acid rain.

### **CORPORATE CONTACT INFORMATION**

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