



Message from Jim McNerne and Kim Smith

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At Boeing, we are focused on creating cleaner, more ef cient ight. Each new generation of products we bring to the marketplace is quieter, consumes less fuel and is better for the environment.

The 747-8 and 787 Dreamliner with smaller noise and emissions pro les than airplanes the replace entered into service last ear. We also launched the 737 MAX with a 13 percent smaller carbon footprint than toda 's Next-Generation 737, which currentl is the world's most fuelef cient single-aisle commercial airplane.

This builds on an enduring legac of continuous improving the environmental performance of our products and services. Toda 's commercial airplanes produce 70 percent less carbon dioxide than jetliners that ew during the 1960s.

Boeing led a broad industr effort that, in 2011, won approval for the use of cleaner, sustainable biofuels in commercial and militar aviation worldwide. Since then, airlines have used biofuels on more than 1,500 passenger ights. These innovative fuels are derived from plants and other biomass sources that do not adversel affect food and water supplies or impede valuable land use. In fact, the signi cantl reduce the net carbon dioxide output of ight.

Looking to the future, we will continue devoting a signi cant portion of our R&D efforts to develop cleaner, more ef cient aircraft. First ight of the Phantom E e an unmanned, high-altitude aircraft powered b clean-burning h drogen occurred in earl June. And Boeing engineers are activel stud ing a new-generation 777 that promises to be even more fuel ef cient with a signi cantl smaller environmental footprint than toda 's market-leading twin-aisle airplane.

In addition to developing innovative and ef cient new products, we also are improving the environmental performance of our internal operations.

Last ear, we began powering our South Carolina production facilit with 100 percent renewable energ generated, in part, b solar panels spanning the 10-acre (4-hectare) roof of the nal assembl building where we are producing the 787 Dreamliner and providing thousands of new manufacturing jobs. This, along with our compan wide effort to reduce energ use, is among the reasons wh we have become an ENERGY STAR Partner of the Year for a second consecutive ear.

In 2007, we established aggressive veear environmental goals for Boeing's internal operations. We committed to reduce greenhouse gas emissions, energ use, ha ardous-waste generation and water intake b 1 percent on an absolute

Jim McNerne Cha<mark>i</mark>rman, President and Chief Executive Of cer The Boeing Compan

Kim Smith Vice President Boeing Environment, Health and Safet

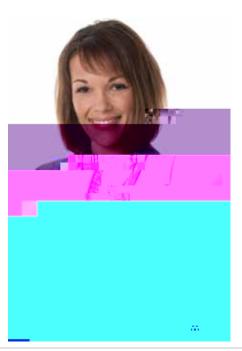
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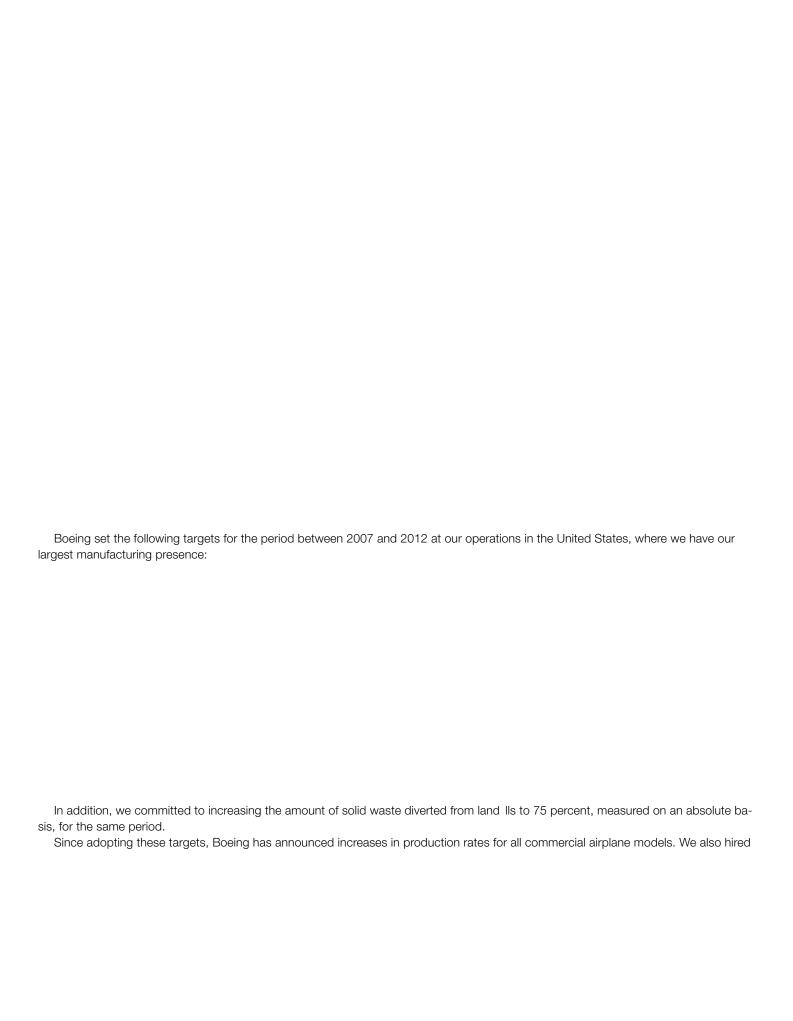
basis. At the time, we anticipated these goals would equate to a 25 percent reduction on a revenue-adjusted basis.

Since then, we have experienced unprecedented growth in our business. We brought two new airplanes to market, increased month | production of jetliners b more than 25 percent, added well over 1 million square feet (92,903 square meters) of additional manufacturing facilities and created more than 12,000 new jobs. During that time, we steadil reduced our environmental footprint.

While this rapid growth has made our environmental goals more challenging, we remain on track to meet or exceed the targeted absolute reduction on most measures, and we expect our revenue-adjusted improvements will still reach the mid to high teens.

Boeing produces strong results because of our people. Our emplo ees continue to nd new and better was to enhance our environmental performance, which bene ts our communities as well as our business.





In aviation, the most signi cant environmental improvements occur when the are designed into a product from the beginning. This forward-thinking approach, which we call Design for Environment, includes anal ing a products environmental footprint over its operational life c cle from raw materials, through manufacturing, into service and, nall, at the end of use.

will test a number of innovations. The wings will be tted with adaptive trailing edges to improve fuel ef cienc at takeoff, climb and cruising altitudes, as well as reduce communit noise. A regen-

ecoDemonstrator

Over the next several ears, Boeing will annual demonstrator airplanes to accelerate emerging technologies designed to increase fuel ef -

cienc , reduce noise and assess sustainable materials. Testing in 2012 and 2013 will be conducted in partnership with the U.S. Federal Aviation Administration's CLEEN (Continuous Lower Energ , Emissions and Noise) program.

The rst ecoDemonstrator technolog suite will be own in late summer or earl fall of 2012 on a Next-Generation 737-800 and

Designing the Future

Designing the Future continued from P5 engines that provide 150 horsepower each, the Phantom E e's rst ight occurred on June 1, 2012.

X-48C



Blended Wing Bod: The shape of things to come?

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This blended wing bod research and test aircraft, designed to advance technologies that will consume less fuel and make less noise, could help to reduce the carbon footprint of aircraft b an additional 20 percent. The Boeing blended wing bod design resembles a manta ra with a at, tailless fuselage. This fuselage blending helps to get additional lift with less drag compared to a circular fuselage. Boeing previousl tested the three-engine X-48B and later this ear is scheduled to the more ef cient twin-engine X-48C.

SUGAR

Boeing's Subsonic Ultra-Green Aircraft Research (SUGAR) team is working to identif future commercial transport concepts for NASA. The team is looking at a number of concepts and technolog



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development for several advanced fuel and energ technolog options for the 2030 to 2050 time frame.

These include h brid batter -gas turbine propulsion, fuel cells, fuel cell gas turbine h brid propulsion s stems, cr ogenic fuels, cr ogenicall cooled engines and associated technologies, advanced batteries and open rotor/turboprop technologies.

One concept, called SUGAR Volt, shows potential to meet NASA's environmental goals for 2030 to 2035. With a h brid propulsion s stem, using both jet fuel and batteries, a greater wingspan and open-rotor engines, the SUGAR Volt is designed to emit 60 percent less carbon dioxide and 80 percent less nitrogen oxide than aircraft that operate toda.

Energ

We are focused on developing smart, secure energ solutions for the U.S. militar that lower operational costs and increase



energ ef cienc at militar installations around the countr. The team is also developing advanced technologies in areas such as renewable energ, energ

storage and carbon capture.

In August 2011, Boeing and Siemens announced an alliance to improve energ access and securit for the U.S. Department of Defense, the largest energ consumer in the federal government.

A faster takeoff continued from P5

One answer can be found in the eco-Demonstrator, a program that takes ight in 2012. Using a Boeing Next-Generation 737, the ecoDemonstrator aims to accelerate technolog through testing of several advanced technologies designed to improve aircraft ef cienc, reduce noise and cut emissions.

Yu said the length development process for carbon ber composite material highlights the role of a research accelerator like the ecoDemonstrator. Composite testing began on the 727 in the 1970s. Carbon ber components pla ed an increasingl bigger role over time on the 747, 767 and 777 before taking a big leap on the 787 Dreamliner.

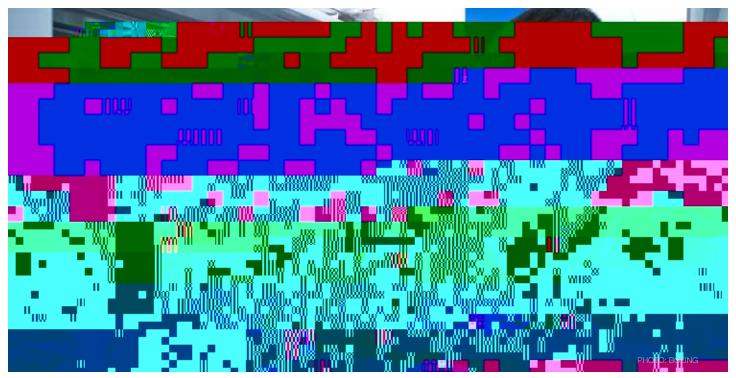
A new technolog 's application has to grow and expand based on our con dence and abilit to learn and produce it more effectivel, Yu said. That's where the eco-Demonstrator comes in.

The test platform enables product developers to gain experience with the technolog and how it integrates with the airplane, 'Yu said. The program's deadlines and ight schedules also help focus their efforts. In essence it's reall about stretching people's imagination into the practicalit of application.'

The ecoDemonstrator program will test new environmentall progressive technologies on a different airplane platform each ear, a schedule which adds other bene ts. We develop a whole new airplane onl once ever 10 ears. That's a long time in between airplanes, 'Yu said. The ecoDemonstrator will help the product development team keep our learning abilit fresh ever ear.

PHOTO: BOEING. Bill Norb, left, propulsion and fuel team leader, and Brad Shaw, chief engineer, are part of the team that is demonstrating the performance, environmental bene ts and potential use of h drogen fuel as part of the Phantom E e high-altitude, unmanned aerial vehicle.

Inspiring the Industr



Boeing is working with a number of organi ations and research and development projects throughout the world dedicated to advancing the development of sustainable aviation biofuels.

Boeing is bringing together customers, suppliers, academic institutions and government organi ations around the globe to work at the leading edge of toda 's most promising technologies for continued environmental ef ciencies.

Biofuels



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Our commercial and militar customers are looking for innovative was to improve the environmental performance of aerospace, reduce the dependence on petroleum and secure a clean-energ future. That is who Boeing is taking a leading role

in accelerating the development of sustainable biofuels that can be used as a drop-in replacement for jet fuel while not competing with food, water or land-use resources.

With a number of initiatives around the world, from Bra il, to the U.S., Australia, the UAE and China, Boeing is working to enable the development and commercialiation of sustainable aviation biofuels.

Major milestones were achieved last ear as Boeing-led industr efforts won approval from ASTM International for aviation biofuels. This organi ation, which establishes fuel standards for commercial and militar aviation around the globe, approved use of these innovative fuels without requiring modi cations to aircraft or engines.

Since these fuels were approved, more than 1,500 commercial airline ights have successfull own using biofuels. The U.S. Nav has certi ed all their aircraft for biofuels ight, and most of the U.S. Air Force aircraft have received similar approvals.

In addition to the regular scheduled commercial ights in 2011, Boeing took a leading role in two pioneering biofuels ights.



Flight deck technolog leads to Greener Skies

A ke part of the strateg to create a more of cient global air trafic management (ATM) is stem is to take better advantage of technolog that is readili available and alread on board most aircraft.

Boeing airplanes have been equipped with highl capable ight management s stems for a long time, said Sheila Conwa, senior engineer in Avionics, Air Traf c Management.

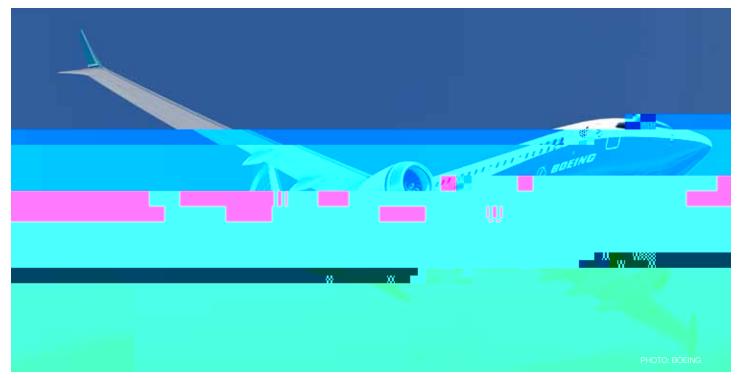
Part of our job is to demonstrate to the airlines, the industr and air traf c controllers how we can leverage the advanced capabilities and functions alread available on the ight deck.'

Conwa said it's also important to show

In June 2011, a 747-8 Freighter made



Cleaner Products



The 737 MAX reduces carbon emissions for better environmental performance. And the noise footprint is 40 percent smaller than toda 's single-aisle airplanes.



Continuous improving product performance is part of our DNA. Environmental improvements onl enhance the exceptional performance our customers expect from Boeing. The 747-8 and 787 Dreamliner have established new standards among jetliners for ef cienc , environmental performance and noise reduction.

The technolog that shapes the environmental performance of the 787 Dreamliner and 747-8 Intercontinental includes advanced materials, more fuelef cient engines, new wing designs and improved aerod namics. And ef cient new

airplanes such as the 737 MAX are on the wa .

747-8

The 747-8 Intercontinental carries more passengers for a longer distance while being cleaner, quieter and more fuel ef cient than an previous 747, while the 747-8 Freighter brings improved economic and environmental performance to the global cargo market. These new additions to the 747 famil give double-digit improvements in fuel econom and carbon emissions with a 30 percent smaller noise footprint.

787 Dreamliner

With a composite fuselage and wings, the 787 Dreamliner is 20 percent more fuelef cient than other airplanes of comparable si e and proves to be more environmentall progressive throughout the product life c cle. The airplane is manufactured using fewer ha ardous materials, consumes less fuel and produces fewer emissions. The Dreamliner is also quieter for airport communities than an previous airplane.



Clean getawa

Forgoing a fuel- lter change on a jetliner as big as the 777 ma, b itself, seem to be a small step in reducing waste and helping the environment.

Yet a team of environmentall engaged emplo ees, which has combined this small step with nine other actions, is having a big impact in making 777 ight tests and deliveries cleaner, quieter and easier on the environment.

We wanted to reduce the environmental impact of the 777 pre ight and deliver process, which includes activities such as painting and engine testing, explained Carol n Barnes, 777 Operations support.

737 MAX

Boeing launched the 737 MAX in 2011, continuing the legac b making the world's best-selling jetliner even more environmentall ef cient. Airlines operating the

As part of our commitment to reduce our environmental footprint, Boeing is working to improve the environmental performance of our factories and of ce locations.

Through conservation projects implemented over the last eight ears, Boeing has saved nearl 114 million kilowatt-hours of energ enough to power 9,940 average homes in the United States.

Our facilit in Long Beach, Calif., was awarded the ENERGY STAR Challenge for Industr b reducing its energ intensit b 10 percent within one ear. The Long Beach site is the rst in the nation to receive this recognition three times. In total, 10 buildings have been ENERGY STARcerti ed including sites in California, Illinois, Missouri, Texas and Washington state. As a result, Boeing was named an ENERGY STAR Partner of the Year for the second consecutive ear.

South Carolina

One of the largest thin- Im rooftop so-

Boeing has LEED-certi ed buildings located in California, South Carolina, Texas and Washington state. Additionall, certi cations are under wa at several other Boeing sites, including our new joint venture composite manufacturing building in Tianjin, China.

Zero Waste to Land II

Four Boeing manufacturing sites our 787 manufacturing facilit in South Carolina, our helicopter manufacturing facilit in Philadelphia, our commercial fabrication site in Salt Lake Cit and our defense s stems site in Huntsville, Ala. currentl send no solid waste to land IIs. Boeing de nes ero waste to land IIs boeing de nes ero waste to land IIs to include, at a minimum, all solid waste generated b operations. It does not include waste generated during construction and remodeling, nor does it include ha ardous waste, which is handled in accordance with applicable regulations.

With a ero-waste-to-land II goal, all sites look for continuous waste-reduction opportunities, such as rec cling efforts and eliminating unnecessar materials used in of ces and on the shop oor.

ISO 14001

Certi cation to the internationall recogni ed ISO 14001 environmental management standard has strengthened our compan wide focus on continuous improvement and enabled a common wa of managing environmental processes across the compan .

Sites in the following locations are certied to the ISO 14001 standard, and Boeing China, the PDX facilit used to paint commercial airplanes in Portland, Ore., South Carolina, and Williamtown, Australia, are expected to earn certication in 2012:

U.S. Locations: Alabama: Huntsville Ari ona: Mesa

California: Anaheim, C press, El Segundo, Huntington Beach, Long Beach, Palmdale, Rancho Cucamonga, Seal Beach, S Imar,

San Diego, Taft and Torrance Florida: Kenned Space Center Georgia: Macon

Illinois: St. Clair Kansas: Wichita

Missouri: St. Charles and St. Louis

Oregon: Portland

Penns Ivania: Philadelphia

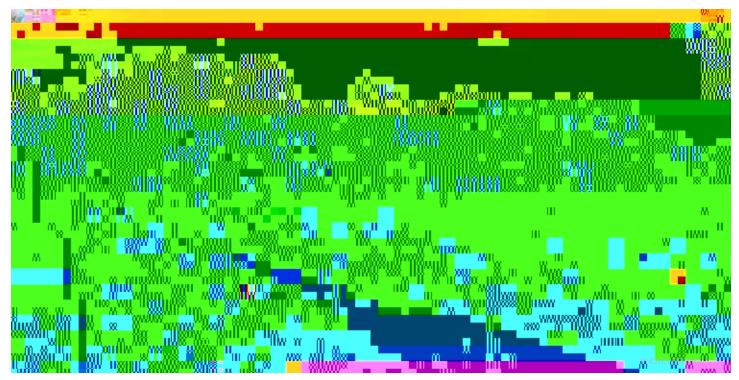
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Our **Actions**

Remediation



Cleanup work at the Chemical Commodities, Inc. Superfund site near Kansas Cit was completed a full ear ahead of schedule. Over the next few ears, Boeing will continue to monitor the site to verif the remed is operating as planned.

As part of our annual \$100 million commitment to cleaning up sites affected b past business practices, Boeing recentl completed work at a U.S. EPA Superfund site a full ear ahead of schedule.

Remediation work is largel performed at former manufacturing facilities and sites where Boeing, or companies we have acquired, shipped chemicals and other waste for treatment, storage or disposal. In man cases, waste-processing facilities that used treatment methods that were considered best practices in the past are being cleaned up to meet or exceed current environmental standards.

Working with national, state and local regulator agencies, we strive for an open exchange of information with communit members, government representatives and other stakeholders as we progress through these cleanups.

Chemical Commodities, Inc.

Over the last 15 ears, Boeing has been working with the U.S. Environmental Protection Agenc and the local communit, and on behalf of a do en other parties, to advance cleanup progress at the Chemical

Commodities Inc. (CCI) Superfund site in Olathe, Kan.

This 1.5-acre (0.6-hectare) site near Kansas Cit was operated as a chemical brokerage and rec cling facilit. During its 38 ears of operation, CCI bought chemicals from do ens of companies and government agencies. Rocketd ne, which was brie part of Boeing, shipped wastes to the site for rec cling for a short time during the 1960s.

Over time, contamination from chemicals shipped b multiple companies to CCI for treatment entered in the soil and groundwater, requiring a comprehensive remediation program.

An important milestone was achieved in the summer of 2011 with construction completed at the site and the nal cleanup remed put in place. B doing this, Boeing accomplished all of the cleanup requirements set forth b the EPA. Over the next few ears, we will continue to monitor the site to verif the remed is operating as planned. Studies are underwa to use the new parkland to attract migrator butteries, bees and other pollinators.



Teaming for success

Cleaning up soil and groundwater contamination is no small feat, but teaming with a diverse group of stakeholders produced signi cant results.

From the beginning, our goal was to build a good relationship and work as a team with the communit and the government agencies involved to resolve an technical challenges and expedite the cleanup process, 'said Joe Flahert', Boeing Remediation project manager.

Activities at Chemical Commodities, Inc. (CCI) in Olathe, Kansas contaminated soil and groundwater during its 38 ears of operation as a chemical rec cling and brokerage facilit. During that time, CCI accepted chemicals from do ens of com-

Our **Actions**

Remediation

Duwamish

The shoreline along the Duwamish Waterwa in Seattle, Wash., looks ver different toda than it did one ear ago. In September 2011, Plant 2, a 35-acre (14-hectare) facilit, was demolished to make wa for a habitat restoration project. More than 85 percent of the World War II, era building materials, including steel and wood beams, copper wiring, concrete and other metals, were rec cled or reused.

Additional cleanup work was completed at Slip 4, also along the Duwamish, which included building a state-of-the-art treatment s stem to clean storm water runoff to stringent levels protective of marine water qualit.

Starting in the fall of 2012, Boeing will begin dredging the waterwa to remove more than 200,000 cubic ards (152,911 cubic meters) of contaminated sediment and replace it with clean sand. A planned 5-acre (2-hectare) wetland and habitat project will provide an important ecological resource to improve Puget Sound sh runs.

Santa Susana

Boeing is making consistent progress in its efforts to clean up Santa Susana and preserve it as open space, connecting a critical wildlife corridor near Los Angeles. A former federal government rocket engine and nuclear energ testing site, Santa Susana cleanup efforts are directed b a number of federal, state and local regulator agencies that oversee soil, surface water and groundwater cleanup programs.

Since acquiring a portion of the site in 1996 as part of the defense and space businesses of Rockwell International, Boeing's team of geologists, engineers and experts in surface water, ground water and radiation have been working to clean up this 2,850-acre (1,153-hectare) site.

Progress in 2011 included demolishing and removing 16 structures and test facilities totaling 39,000 square feet (3,623 square meters). In addition, Boeing completed construction of two state-of-the-art storm water treatment s stems that collect storm water runoff in tanks before treating it with chemicals and advanced. Iters. As remediation efforts continue, Boeing is planting native vegetation and working with several organiations including the San Fernando Valle Audubon Societ. and the nonprot Pollinator Partnership to enhance the site for wildlife.

Performance

Summar of Environmental Performance (2007 2011)

Boeing has reduced its environmental footprint at a time of signi cant business growth. We continue to work toward our ve- ear goal to reduce greenhouse gas emissions, energ use, ha ardous-waste generation and water intake b 25 percent on a revenue-adjusted basis and b 1 percent on an absolute basis. While our unprecedented increases in airplane production have made these goals more challenging, we remain on track to achieve the targeted absolute reduction on most measures and expect our revenue-adjusted improvements will still reach the mid to high teens.

On an absolute basis, Boeing has reduced CO₂ emissions b 3 percent, energ use b 1 percent, ha ardous waste b 17 percent and water intake b 9 percent since 2007.

On a revenue-adjusted basis, Boeing has reduced CO_2 emissions b 7 percent, energ use b 4 percent, ha ardous waste b 19 percent and water intake b 12 percent since 2007. In 2011, 76 percent of the solid waste we generated was diverted from land lls a 31 percent improvement since 2007.

Data reported in this section re ects environmental performance at the following sites, which represent the vast majorit of Boeing's operations in the United States:

Alabama: Huntsville Ari ona: Mesa

California: Anaheim; El Segundo; Huntington Beach; and Boeing

Defense, Space & Securit operations in Long Beach

Kansas: Wichita

Missouri: St. Charles and St. Louis

Oregon: Portland

Penns Ivania: Philadelphia Texas: Houston and San Antonio

Washington: Auburn, Developmental Center, Everett, Frederickson, Kent Space Center, Moses Lake, North Boeing Field, Plant 2, Renton and Thompson

In some cases, data from additional sites and of ce locations are included. When that occurs, it is indicated in the footnotes accompan ing data tables and graphs.

The graphs in this section are labeled with information rounded to the nearest decimal place. However, graphs throughout this Environment Report are calculated using whole values. Consequentl , some slight variation ma occur for the purpose of creating visual presentations.

^{* 2007 2010} ENERGY AND CO., VALUES have been restated to reject the addition of PDX (Portland), Ore.

^{* 2007 2010} CO, emission numbers are adjusted to re ect the use of U.S. EPA regional 2010 eGRID factors.

Performance

Performance continued from P16

During the past ear, Boeing began tracking the environmental footprint at our new manufacturing complex in North Charleston, S.C. In 2011, we tracked carbon dioxide emissions, energ consumption, water intake, ha ardous-waste generation at several but not all of our facilities in South Carolina, including the 787 nal assembl building and the airplane deliver center. Where data from South Carolina is included in this report, it is noted in the footnotes. We anticipate that our 2013 Environment Report will include data for all of our South Carolina operations.

When an emplo ee switches on a light in Building 270 at Boeing's site in St. Louis, energ managers want him or her to know how that simple action could have a big impact on energ use.

Part of the education about energ use was to tell emplo ees that if a person came to work on Saturda and turned on the lights, it turned on the lights and the heating or airconditioning s stem for the entire oor, said Br an Kur, senior manager for Boeing's conservation efforts. One person working eight

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Since 2007, Boeing's absolute ${\rm CO_2}$ emissions have decreased b 3 percent. On a revenue-adjusted basis, Boeing has reduced ${\rm CO_2}$

Since 2007, Boeing's absolute energ use has decreased b 1 percent. On a revenue-adjusted basis, Boeing has reduced energ use b 4 percent since 2007.

Boeing's absolute energ consumption increased b 5 percent

in 2011 compared with the previous ear. This increase is attributable to increased production rates of commercial airplanes and the

Ha ardous Waste

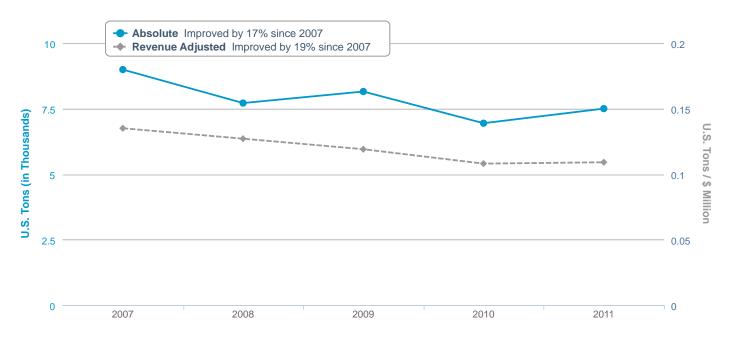
Since 2007, Boeing has reduced absolute ha ardous waste generation b 17 percent. On a revenue-adjusted basis, Boeing has reduced operational ha ardous waste b 19 percent since 2007.

Boeing's absolute operational ha ardous waste increased b

8 percent in 2011 compared with the previous ear. This increase is attributable to increased production rates of commercial airplanes.

Ha ardous waste data does not include waste derived from construction or remediation activities.

Hazardous Waste



- Also includes data from El Paso, Tex., Heath, Ohio, Macon, Ga., Salt Lake City, Utah, Palmdale, Calif., Sylmar, Calif., PDX (Portland), Ore., and North Charleston, S.C.
- 1 U.S. ton = 2,000 pounds.



Water Intake

Since 2007, Boeing has reduced absolute water intake b		
9 percent. On a revenue-adjusted basis, Boeing has reduced wa-		
ter intake b 12 percent since 2007.		
Boeing's absolute water intake increased b 2 percent in 2011		

compared with the previous ear. This increase is attributable to increased production rates of commercial airplanes and facilit growth, including a 7 percent growth in emplo ment.

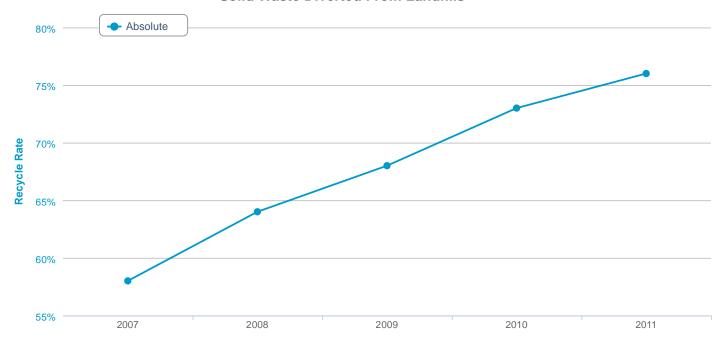


Solid Waste Diverted From Land IIs

In 2011, 76 percent of the solid waste we generated was diverted from land Ils, up from 73 percent the previous ear. Boeing has improved this measure b 31 percent since 2007. Waste is diverted from land Ils through a combination of rec cling, composting and energ recover programs.

Boeing measures nonha ardous solid waste generated bour operations. This includes waste streams such as metals, wood, paper, cardboard, plastics and organic materials. It does not include ha ardous waste, construction waste, remediation waste or asbestos abatement activities.

Solid Waste Diverted From Landfills



- Also includes data from Bellevue, Wash., South Park, Wash., Longacres Park, Wash., Spares Distribution Center, Wash., Duwamish Office Park, Wash., Boeing Commercial Airplanes operations in Long Beach, Calif., and Seal Beach, Calif.
- 1 U.S. ton = 2,000 pounds.
- Recycling rate is calculated by dividing the amount of nonhazardous solid waste recycled by the total amount of nonhazardous solid waste generated.

Toxic Release Inventor / National Pollutant Release Inventor

Boeing reports toxic releases to both the U.S. Toxic Release Inventor (TRI) and to Canada's National Pollutant Release Inventor (NPRI), an inventor of pollutant releases and rec cling, on an annual basis.

Total releases have remained stead since 2007, while overall transfers of chemicals to off-site facilities have decreased 89 percent during the same period. Transfers peaked in 2007, largel as

a result of a transfer of old tooling and scrap metal to a rec cler from our Wichita facilit .

Data for 2011 will be submitted to the U.S. and Canadian governments after the publication of this report and will be included in Boeing's 2013 Environment Report.

^{• 2011} data will be submitted to the U.S. and Canadian governments after the publication of this report. Boeing will provide 2011 data in its next Environment Report.

^{• 14} sites report TRI and NPRI releases and transfers: Auburn, Wash., El Paso, Texas, El Segundo, Calif., Everett, Wash., Frederickson, Wash., North Boeing

Inter6018t1 1peing U.K.K.

Boeing emplo ees work on ever continent, with 18 international of ces around the globe. Our largest operations outside the United States are based in Australia, Canada and the United Kingdom.

Australia

In October 2011, Boeing led its third National Greenhouse and Energ Report with the Australian Department of Climate Change. This report, which details greenhouse gas emissions, energ consumption and energ production data, must be completed b registered corporations that meet speci ed energ use and greenhouse gas emission thresholds.

For the 2010 2011 reporting period, the Australian government's Clean Energ Regulator released data for companies emitting more than 50,000 metric tons (55,116 tons) of equivalent carbon dioxide ($\mathrm{CO_2}$ -e). Boeing Australia's $\mathrm{CO_2}$ -e emissions were calculated at 89,926 metric tons (99,126 tons).

Overall, Boeing Australia has achieved a 9 percent reduction in ${\rm CO_2}$ -e emissions since the rst reporting period (2008, 2009), while simultaneous increasing production rates of aerospace components.

Canada

Boeing reports to Canada's National Pollutant Release Inventor (NPRI), an inventor of pollutant releases, off-site disposal and treatment, on an annual basis. Since 2007, NPRI reporting increased signicant because of an increase in airplane production rates, resulting in the triggering of additional threshold reporting requirements. For more information, see the TRI/NPRI page in this Environment Report.

United Kingdom

The Carbon Reduction Commitment Energ Ef cienc Scheme (CRC), under the U.K. Department of Energ and Climate Change, is a mandator emissions trading scheme aimed at reducing CO₂ emissions

in the United Kingdom. The CRC aims to raise awareness of energ use and incentivi e energ ef cient operations.

For the rst reporting period, April 1, 2010, through March 31, 2011, Boeing's total footprint emissions were 4,037 metric tons (4,450 tons) of CO₂, and CRC-regulated emissions were 3,895 metric tons (4,293 tons) of CO₂. Boeing operations in the U.K. consist of multiple units and subsidiaries. Boeing U.K. Training and Flight Services Ltd. operate ight simulators for training on Boeing aircraft at several locations throughout the U.K. Boeing Defence U.K. Ltd. has emplo ees located at multiple locations throughout the U.K. supporting Ministr of Defence and U.S. militar programs.

Additionall, CO₂ emissions from Boeing subsidiaries Aviall U.K. Ltd., Continental DataGraphics Ltd., Jeppesen U.K. Ltd., and Narus U.K. Ltd. throughout the U.K. are also included in the Boeing U.K. CRC report.

Recognition



Boeing has participated in the Carbon Disclosure Project since 2006. For the third consecutive ear, Boeing was named to the 2011 Carbon Disclosure Leadership Index. Boeing's 2011 submittal is available here, or read the 2011 Report. We will post our 2012 data after the information is submitted to the Carbon Disclosure Project..

Boeing received environment awards and recognition from a number of local, national and international organi ations in 2011. These included the following:

- S&P 500 and Global 500 Leadership Indexes from the <u>Carbon Disclosure</u> Project.
- Climate Innovation Index Leader from Maplecroft.
- ENERGY STAR Partner of the Year from the U.S. Environmental Protection Agenc .
- National Top 50 Partner from the U.S. Environmental Protection Agenc <u>Green</u> <u>Power Partnership</u> for Boeing South Carolina.
- U.S. Newsweek Green Ranking: 1 for Capital Goods/Manufacturing, 36 overall.
- Local water quality awards presented by water treatment districts in multiple locations including El Paso, Texas, El Segundo, Calif., Kent, Wash., Long Beach, Calif., Portland, Ore., Seattle, Wash., St. Louis, Mo., and Wichita, Kan.



Plugging in for a cleaner drive

It started when the owner of one electric Nissan Leaf at Boeing's site in El Segundo left a note on the windshield of another electric Leaf. Before long, that grew into a small network of electric vehicle (EV) owners who began to rall support for an on-site EV charging station.

Sudden! there were six or seven of us who thought we should get together and take steps to become more self-reliant and not have to worr about charging our cars at a different location, explained Erik Daehler, senior manager at the Boeing satellite plant in Southern California.

Their efforts paid off when El Segundo was chosen as one of four Boeing locations included in a ear-long pilot project of on-site charging stations for emplo eeowned EVs.

Each station can charge up to four vehicles at a time, and a t pical EV batter

needs ve to six hours to full recharge. Daehler said the station is often full, but EV owners support each other. One da ou get an email that sa s, 'He, I'm in a pinch and need to borrow one of the stations.' Somebod runs out and moves their car for another owner to come in.'

I think it's part I because the people who work in the satellite group in El Segundo tend to embrace technolog and be earl adopters. Our commute also is perfect I suited for an EV, which can drive up to 60 miles on a full charge, he said.

The EV owners also believe the charging stations are important signs of Boeing's commitment to the environment and to be a technolog leader. Other high-tech companies like Google encourage their emplo ees to drive EVs. It's important for Boeing to be seen as a forward-leaning technolog compan, said Leo Chan, s stem test engineer and an EV owner.

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