

GE Environmental Report – China (2011)

Environment, Health and Safety (EHS) commitments are a priority for GE, no matter where it operates in the world. GE China has specific requirements for protecting the environment, and safeguarding the health and safety of its employees, including: (a) meeting the requirements of Chinese laws and GE's policies; (b) eliminating hazards and providing a safe workplace for its employees; (c) conducting environmental due diligence for any new investment, joint venture or activity in China; (d) reducing usage and discharge of toxic or harmful substances and disclose China's Environmental Report publicly; and (e) continuously improving GE's EHS management system as an integral part of overall operations.

GE China discloses the Environmental Report publicly as part of its strategy to meet these requirements and promote EHS awareness in China. Compliance with China's laws and regulations is at the core of GE's EHS policy, and a precondition for any operation or investment in China. GE uses local EHS regulatory guidelines and self-assessment checklists, developed for national regulations on air, water, waste and other environmental areas, to ensure compliance with EHS commitments during China's rapid economic transformation, which helps GE to increase its business in China's growing market.

Starting in 2004, GE began collecting greenhouse gas (GHG) emissions data for its worldwide operations. In 2006, GE began gathering waste generation and water consumption data. In 2009, GE China released the "GE Environmental Report – China (2008)" disclosing environmental performance data for the first time and demonstrating GE's commitment to environmental transparency. This report presents key environmental data for GE China operating facilities in 2011.

Data Sources

In 2011, GE had 25 manufacturing facilities (wholly owned or majority stake) in China. The number of GE China facilities in 2011 increased by four compared to 2010, which was due to the merger of four 2010 facilities into two 2011 facilities, and the acquisition of five new facilities. This report gathered environmental data from Pollutant Discharge Registration Forms submitted to government agencies by the 25 facilities in 2011. Greenhouse gas (GHG) emission data were collected from GE's internal reporting system.

In order to better represent real changes in environmental impacts caused by increasing production capacity, or affected by acquisitions and divestitures, this report tracks Environmental Release Intensities, or ratios between environmental impact and GE China Output¹. This metric reflects environmental impact per unit of manufacturing revenue, allowing for historical comparisons and reflecting productivity and material efficiency while manufacture growth, which resulted from effective environmental program implementation.

Data in this Report excludes GE Advanced Materials Business (Plastics, Silicone and Quartz), facilities which have been sold from 2007 to 2008.

The below environmental data are in units of metric tons, or ratio of environmental data versus GE China Output.

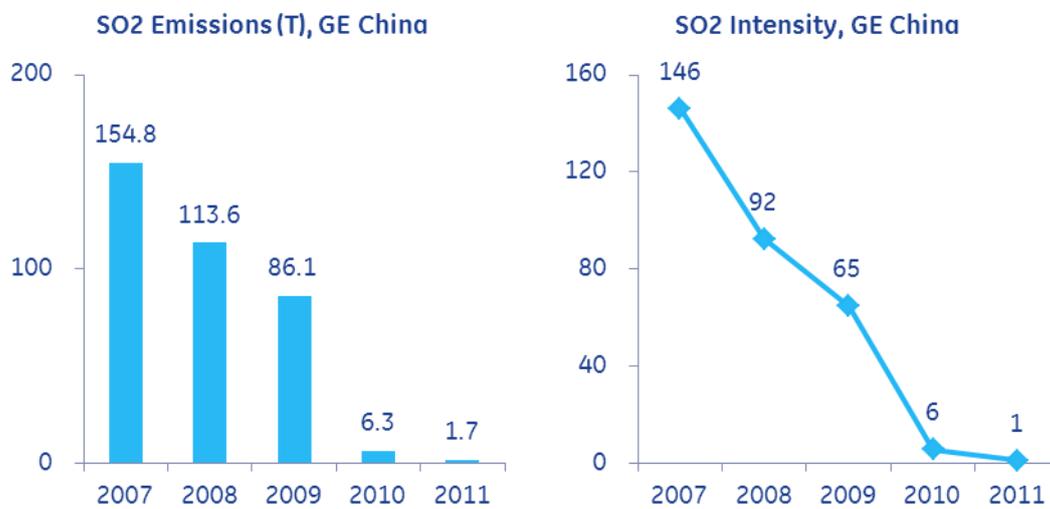
¹China Output: revenues from all GE China facilities' production, including sales in China and overseas, but imports to China and China's service revenues excluded.

Key Environmental Indicators

In addition to sulfur dioxide (SO₂), greenhouse gases (GHG), fresh water use, chemical oxygen demand (COD) and hazardous waste, GE China began measuring two additional environmental indicators in 2012 for: nitrogen oxides (NO_x) and ammonia- nitrogen (NH₄-N). This in line with China 12th 5-year plan, which NO_x and NH₄-N are added as targeted pollutants.

Air: Sulfur Dioxide (SO₂) Emissions

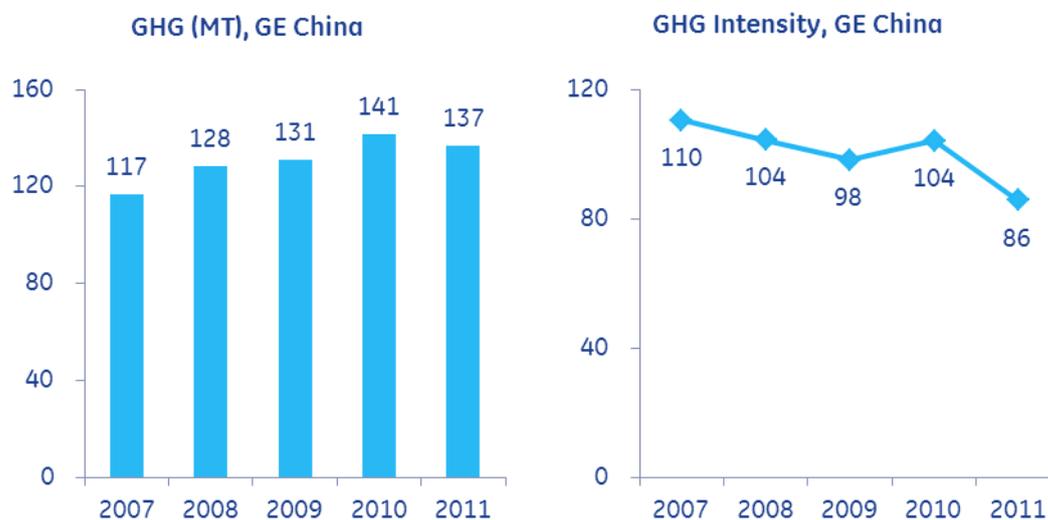
In 2011, sulfur dioxide (SO₂) emissions from GE China facilities were 1.7 metric tons, which was a 78.0% decrease from the year prior. This represents one percent of SO₂ emissions in 2007. Moreover, 2011 SO₂ emission intensity decreased sharply by 81.2% from the year prior.



SO₂ emissions have been significantly reduced by GE operations in China through the steady replacement of coal, heavy oil or diesel-fired combustion equipment with natural gas systems. Progress has been historically driven by GE Lighting facilities, which have successfully replaced all heavy oil industrial furnaces with natural gas.

Air: Greenhouse Gas (GHG) Emissions

GE China's 2011 greenhouse gas (GHG) emissions were 137 metric tons of carbon dioxide equivalents (CO₂e), an increase of 5.7% from the year of 2010. GE China invested heavily in new production capacity in 2010, which led to a spike in emissions intensity for the year. As new production came online in 2011, GHG emissions intensity dropped by 17.3% accordingly.



GE China's GHG emissions arise from electricity use and the consumption of fossil fuels during manufacturing. Displacing carbon-intensive fuels with cleaner fuels – heavy oil to natural gas, for example – enhances GHG mitigation. Moreover, upgrading combustion systems helps to reduce SO₂ emissions.

GE is also a strong proponent of “Treasure Hunts,” or competitions that leverage the expertise and creativity of GE employees to identify energy-saving opportunities. Energy-saving ideas are collected from facility employees, who possess an intimate understanding of workshop processes. Small ideas can lead to big results. For example, a small energy saving project for a flare machine in lighting business Shanghai reduced natural gas consumption by 66%.

GHG data collection and accounting systems have been verified and approved by external consultants. More information on GE's GHG inventory, including methodology, Quality Control/Assurance processes, baseline verifications, and the extent to which GE follows the World Resources Institute (WRI)/World Council for Sustainable Development (WBCSD) GHG Protocol can be found at

www.ge.com/citizenship/performance_areas/environment_health_safety_inv.jsp

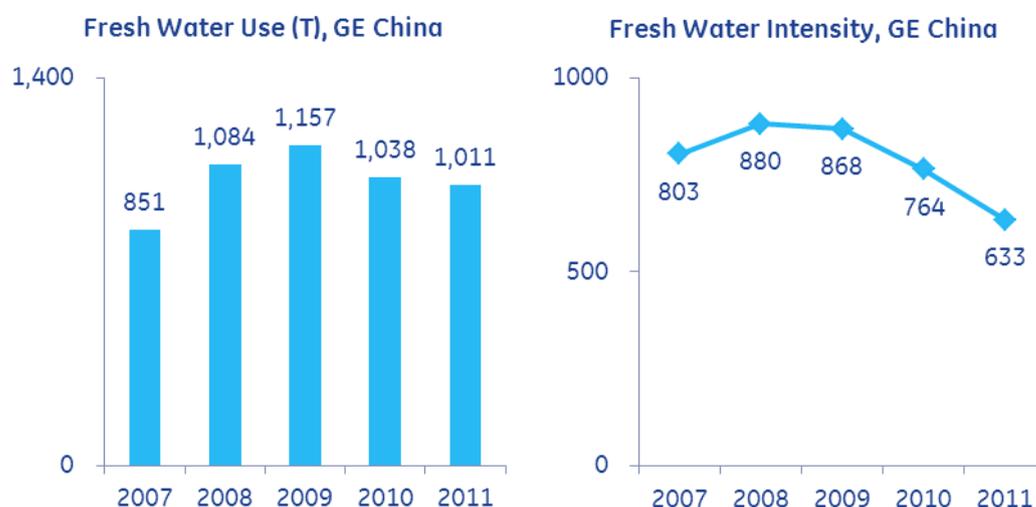
Air: Nitrogen Oxide (NOx) Emissions

This year, GE China began to track and analyze NOx emissions. GE China facilities released 22.2 metric tons of NOx in 2011. As NOx monitoring were not required and performed at every site before 2011, the NOx data in 2011 would be a baseline data for tracking and analyzing move forward.

NOx emissions are driven primary by the use of nitrate as a raw material during manufacturing process. High temperatures nitrate combustion generates NOx in industrial furnaces.

Water: Fresh Water Use

GE China used 1,010,543 metric tons of fresh water² in 2011, a 2.6% decrease from 2010. Fresh water use intensity also saw a decline of over 17.1%.



Repairing aging water infrastructure has led to significant reductions in water wastage. Replacing leaky water pipes and valves has increased efficiency, while installing water saving equipment such as low-vaporized cooling towers and water saving appliances has led to further gains. Taking 2007 as baseline, by 2011 GE China achieved 21% of Fresh Water reduction, in spite of manufacture outputs grew each year.

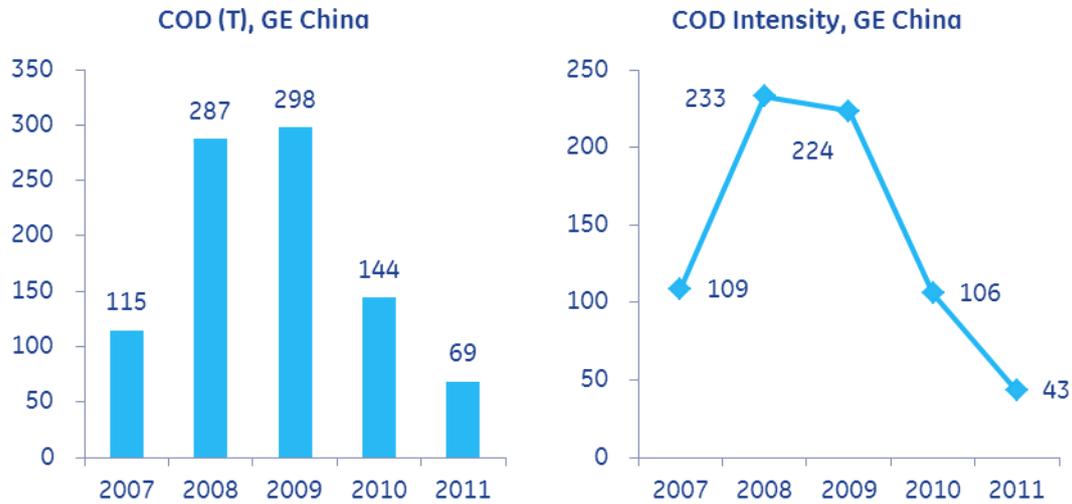
In 2008, GE announced a global water reduction goal for manufacturing operations – a 20% reduction by 2012 from a 2006 baseline. In early 2009, GE further proposed a 25% water reduction goal by 2015. In recent years, GE has designed many tools to help facilities implement water saving measures and assess the benefit on water saving. To learn more about this initiative, please visit:

<http://www.gecitizenship.com/our-commitment-areas/environment-health-safety/environmental-disclosures/water-use/>

²Fresh water use includes public potable water, process and domestic water, as well as non-contact cooling waters from freshwater sources.

Water: Chemical Oxygen Demand (COD)

GE China facilities discharged 69 metric tons of COD in 2011, a reduction of 52.1% from the year prior. Similarly, COD discharge intensity fell by 59.4% from 2010.



The continuous reduction of COD mainly resulted from many GE China facilities optimized the management of sanitary wastewater and improved the performance at wastewater treatment facilities.

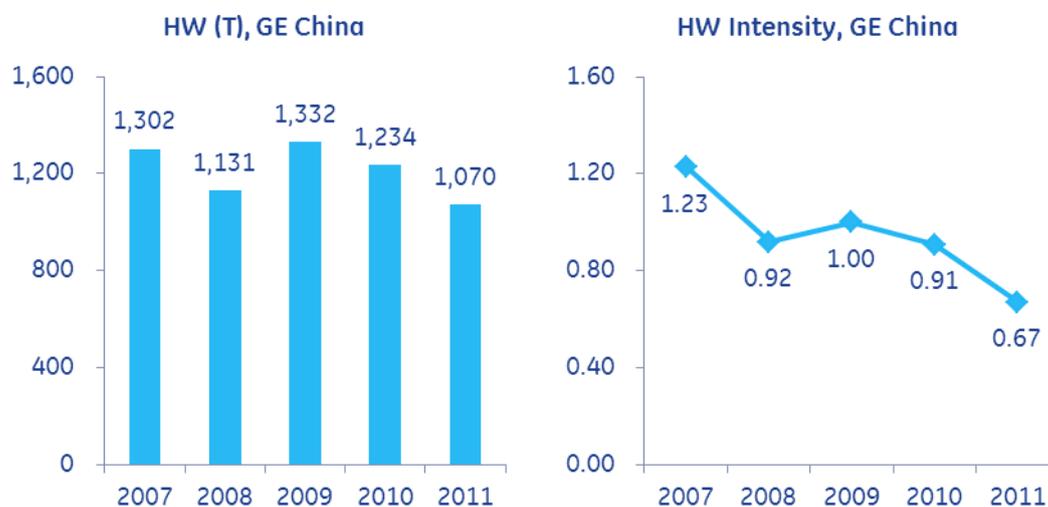
Water: Ammonia-Nitrogen (NH₄-N)

From 2011, all sites in GE China began tracking and analyzing NH₄-N discharge. There was totally 8.9 metric tons of NH₄-N discharged in 2011. The same as NO_x, NH₄-N monitoring were not required and performed at every site before 2011, the NH₄-N data in 2011 would be a baseline data for tracking and analyzing move forward.

NH₄-N discharge is very similar to COD, which mainly generated from sanitary wastewater streams.

Hazardous Waste

In 2011, GE China facilities generated 1,070 metric tons of hazardous waste, a decrease of 13.3% from the year prior. Similarly, 2011 hazardous waste generation intensity dropped by 26.4%.



From 2010 to 2011, GE Lighting China proactively worked with their local and municipal level EPB to study and reclassified about 81% total hazardous waste into industrial waste (mainly the sludge from industrial cooling wastewater treatment), according to GB5085.1-7 Hazardous Waste Discrimination Standards. GE facilities have also been improving industrial processes to further reduce environmental impact. For example, using more environmental friendly chemicals during industrial cleaning processes has prevented contamination by hazardous chemicals. GE facilities have continued to make progress in waste handling, such as improving waste identification and segregation, and waste management, such as optimization of raw material inputs. Moreover, GE China's waste vendor qualification program requires hazardous waste vendors to meet internal standards in addition to government requirements.

Environmental Awards

Beyond GE's internal systems, GE continues to be a steady recipient of EHS recognition from government authorities, nonprofit organizations and media outlets. In 2011, various GE China facilities were recognized for EHS leadership or management system over 20 times by government, NGOs or media. Below listed are some examples:

GE Power and Water (P&W)

- GE's P&W facility in Hangzhou received numerous EHS awards over the course of 2011. Hangzhou's environmental protection bureau (EPB) rated the facility as a "Green-Grade Enterprise" (绿色企业) for the fourth consecutive year in 2011, continuing a legacy of environmental management excellence. Published on both the Hangzhou government's homepage and the EPB website, only two companies (including the P&W site) received this honor this year. Impressed with the site's hazardous waste management practices, the Hangzhou facility was also given the title of "profitable yet virtuous" (获利有道) in Zhejiang's provincial solid waste magazine.
- GE's P&W Qinhuangdao facility was named an "Advanced Environmental Protection Enterprise" by the

Qinhuangdao Economic & Technological Development Zone, for vigorously carrying out the "Eleven-Fifth" environmental protection program.

- GE's P&W wind energy manufacturing site in Shenyang was awarded the title of "Green Environment Enterprise" (绿色环保企业) by the Shenyang municipal government, for manufacturing environmentally friendly energy-saving products.

GE Oil & Gas (O&G)

- GE's O&G facility in Changzhou was designated as an "Environmentally Friendly Company" by the local EPB for implementing sound environmental management practices.

GE Healthcare

- GE Healthcare's medical equipment manufacturing facility in Shenzhen was awarded RMB 20,000 and the title of "Advanced Waste Reduction Enterprise" (减废先进企业) by the city's Human Habitat and Environment Committee, for proactively supporting waste reduction operations and developing a model green facility that meet municipal waste reduction requirements.