

ABB Inc
16250 W. Glendale Drive
New Berlin, WI

Annual Green Tier Report for 2011

Background

ABB Inc. received formal induction into the Green Tier program on December 11, 2008. ABB Inc. is located in New Berlin, WI and is comprised of employees working in the Low & Medium Voltage Drives (AC Inverters), Low Voltage Products (Starters, Contactors Soft Start Controls), Power Electronics, Printing Systems and other associated ABB businesses.

Business Expansion

The Baldor Electric Company, manufacturer of electric motors, drives and other associated equipment, became a member of the ABB group in January 2011. Baldor is part of ABB's Discrete Automation and Motion (DM) business as is the ABB's Drives group. ABB New Berlin along with Baldor have worked diligently in 2011 to make this a strong and robust partnership. Baldor's headquarters is located in Fort Smith, Arkansas.

Environmental Management System (EMS)

ABB achieved the requirements and received ISO14001 environmental certification in March 1999. March 2011 marked the 12th year of our EMS certification. ABB New Berlin receives a 3rd party audit annually by Det Norske Veritas (DNV) to the ISO environmental standard. A yearly internal auditing is performed by ABB personnel.

Environmental Compliance

An external audit for environmental compliance is performed bi-annually. This audit was performed by Environmental Resource Management (ERM) in October 2011. Only minor issues were found to address.

Employment

- Employment increased to 548 at this site at the end of 2011 compared to 488 employees at the end of 2010.

Energy

- Electricity Usage - In 2011 the electrical usage at this facility was 4081 MWh compared to 3756 MWh electrical usage in 2010. This shows an increase in electrical usage of 8 %. This increase is primarily due to our Power Electronics

business having a large increase in business compared to 2010. This business group performs testing on large electrical equipment such as power rectifiers and static var compensation equipment. This equipment is tested off-peak; however, the testing processes do require electricity at a higher voltage and current than our standard products require. This site also had an increase in Low Voltage Drives production, requiring electrical testing, of approximately 15%.

- Natural Gas Usage – In 2011 the natural gas usage at this facility was 7776 MWh compared to 701 MWh of natural gas usage in 2010. This shows an increase of natural gas usage of 10%. Since no process at this facility requires natural gas, this increase has been attributed to the heating of the facility and the number of cold days in 2011 compared to 2010.
- Total energy usage in 2011 was 4857 MWh compared to 4457 MWh in 2010, an increase of 8 %.
- Presently, no energy comes from renewable resources.

Water Usage

- Water Usage at this facility in 2011 was 5890 Cubic Meters (1,555,973 gallons) This compares to 9682 Cubic Meters of water used in 2010, a 62% decrease. This decrease is based upon the testing more air cooled units fewer of water cooled units. A closed loop system was also installed to decrease water consumption during the test process by the Power Electronics group. No additives were put into this sites water.

Recycling

- The following are quantities of materials recycled in 2011 at this ABB site:

Cardboard & Paper	183 Tons
Scrap Steel, Copper & Aluminum	45 Tons
Wood	358 Tons
Printed Circuit Boards	2 Tons
Plastic	22 Tons

- An improvement was made in out plastics recycling process in 2011. Material Recovery Inc. is now recycling virtually all of the plastic disposed of at this facility.
- Including other small items, this site recycled 1,230,000 pounds (615 tons) of material in 2011!

Waste

- The amount of general waste (garbage) generated at this facility in 2011 was 68.7 tons. This is a slight decrease from 2010

Spills

- There were no spills to report or document in 2011 at this facility.

Chemical Reduction

- ABB New Berlin is a small quantity generator of hazardous waste. Containers, ranging from 2 oz to 120 oz, of chemicals and hazardous waste were disposed of in 2011.

2010 Environmental Objectives

- ABB New Berlin's Green Tier environmental goals in 2011 were the following:
 1. **Reduce total energy consumption per employee by at the facility by 2.5%** - This corporate goal was achieved even due to the increase in our businesses which require electrical testing. See **Energy** above. **This site was able to reduce its Energy Consumption per employee by 8.8%.**
 2. **Reductions of the chemical waste stream at our facility - In 2011, 40 pounds of hazardous chemicals were removed** from this facility. This task is performed on an annual basis.
 3. **Improvement of the energy efficiency of our products** –ABB is presently involved in designing a new family of LV drives for general industry.

Continuous Improvement

- ABB's "Green Team" was formed in October 2008 for continuous environmental improvement by adopting new environment initiatives.
- The "Green Team" accomplishments for 2011 were: Improved battery recycling, the introduction of writing implement (pens & pencils) recycling, the use of bamboo mixing utensils in the cafeteria replacing plastic items, the elimination of individually wrapped utensils in the cafeteria and the use of reusable plastic ABB drinking cups.
- No major energy saving projects was implemented in 2011.

Process Changes in 2011

- The electrical test duration of LV drives was reduced by 15% approximately per unit in 2011
- A closed loop cooling system was used during the testing of water cooled power rectifiers
- ABB's Motor Group was combined with Baldor's and relocated to Fort Smith, Arkansas

2012 Environmental Objectives

- Reduce energy consumption of energy per employee by 2.5% (ABB corporate goal)
- Implement a fuse recycling program (reuse of materials)
- Implement a scrap electrical component program (reuse of materials)
- Replace foam packaging cushions with corrugated cardboard cushions
- Achieve Green Team Initiatives