



## **16250 W. Glendale Drive New Berlin, WI 53151**

### **Green Tier Annual Report - 2015**

For ABB, sustainability is about balancing economic success, environmental stewardship and social progress to benefit all our stakeholders.

The ABB Inc. Glendale Drive location is located in New Berlin, WI. An average of 337 employees and contractors are working on site daily, across 2 shifts, beginning at 6 am. The facility is comprised of 3 business units: Discrete Automation and Motion, Low Voltage Products, and Power Systems. Products produced include low, medium, and high powered drives (AC inverters) and soft stat controls. In addition, the site houses engineering for research and development and supply chain management.

#### **Environmental Management System Report:**

Environmental management is one of ABB's highest business priorities and we are committed to conducting our operations in an environmentally sound manner by applying environmental management systems, such as ISO 14001, in all our operations and by applying environmental principles, such as commitment to continual improvement, legal compliance and awareness training of employees, in all our operations worldwide.

In February 2015, an ISO 14001 environmental management system (EMS) external audit was conducted by Det Norske Veritas (DNV). One minor non-conformance was identified around the effectiveness of corrective actions. The site has adopted a 3 month follow up of corrective actions for all high potential environmental incidents. This is tracked in the incident management system.

In November 2015, an internal ISO 14001 audit was conducted by the ABB corporate Environmental-Sustainability department. Three minor non-conformances were identified, all were corrected prior to the recertification audit conducted in February 2016. No non-conformances to the management system were found in this recertification audit.



## Environmental Compliance Report:

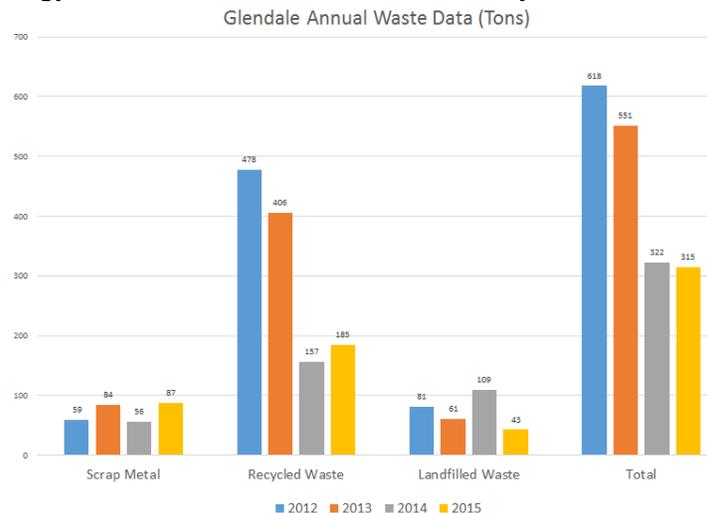
In 2013, an environmental compliance audit was conducted by ABB corporate environmental professionals, external to the New Berlin location. The findings from this audit were addressed and resolved by the facility personnel in a timely manner to maintain compliance with applicable state and federal regulations. A follow up audit is scheduled for July 2016.

An environmental compliance self-audit was conducted in 2015. From this, a more robust used lamp recycling process was established using Waste Management LampTracker and all remaining asbestos floor tile and mastic was removed from the facility. A site inspection was conducted at the location’s scrap metal and electronic waste handler to verify compliance and adequate handling of materials.

### Description of progress:

#### 2015 Objectives & Targets

1. Obtain LEED Silver Certification for Glendale Drive
  - Application completed
2. Track the volume of recycling material on a quarterly basis and compare year over year improvement with a 10% improvement planned for 2015
  - Eliminated pallet waste by partnering with a recycling company that grinds use pallets into mulch.
  - 60% reduction in landfilled waste in 2015.
3. Conduct an internal environmental compliance assessment using the ABB Environmental Compliance Questionnaire
  - Completed July 2015 with actions monitored in Intelex audit management system.
4. Green Team all campus clean up & community outreach program
  - Campus clean up held on Earth Day
  - Community outreach conducted at the Urban Ecology Center
5. Conduct an energy conservation audit
  - An energy conservation audit was not formally conducted in 2015.





## 2016 Goals & Objectives

1. Water discharge reduction (significant aspect)
  - a. The Emmer Drive Repair Center will be relocated to the Glendale Drive facility in mid-2016. The repair process generates industrial waste water. A project will be launched to reduce the risk of discharge of this water.
2. Sustainability metric reporting process
  - a. Streamline sustainability data and develop a factor to normalize the data based on production hours. As production increases, electricity use increases.
3. Waste disposal reduction
  - a. Landfill waste reduction of 10%
  - b. Solvent rag management process improvement

## Sustainability Metrics:

See attached form.

## Requested components

## Executive Summary

ABB New Berlin's Glendale Drive location is proud to be a Green Tier participant because sustainability is what ABB is all about! ABB is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. We aspire to create value for our stakeholders by meeting the needs of our customers, employees and the communities where we undertake business. We strive to reduce our own environmental impact. We contribute to eco-efficiency and environmental stewardship in the communities and countries where we operate. Our core businesses offer energy-efficient systems, products and services, which enables our customers to lower their use of energy and natural resources.

In early 2014 our senior leadership launched a drive to embed safety and integrity as a core company value. "Don't look the other way" defines the required behavior throughout the organization and activity under this banner is focused on positive behavioral change, emphasizing personal leadership and accountability as the basis for fundamentally improved performance. Our employees are empowered to identify, report, and fix environmental hazards and concerns.

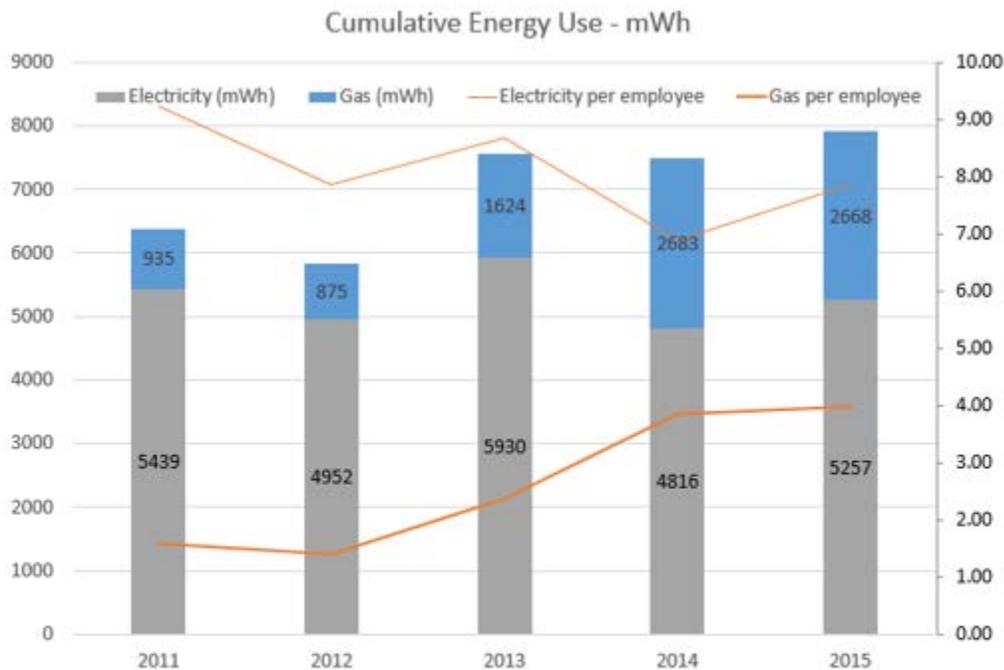
ABB's commitment to sustainability is embedded in our culture, with a code of conduct that states "All ABB employees must respect the letter and spirit of environmental laws and regulations, respect the environment wherever they work." Our employees understand that we all may have a different impact, but we can all make a positive change. ABB's sustainability commitment is evident in our published annual Sustainability Performance Report, which informs stakeholders of our performance, engagement and challenges.

Our focus at the ABB New Berlin, Glendale Drive facility is continuous improvement. We strive to proactively identify environmental hazards and minimize environmental impact, improving overall sustainability. One way this has been completed is through the use of "Safety App", a



web based tool with a linked smart phone application that allows for the immediate reporting of safety, health, and environmental hazards or near misses. Over 1,200 safety hazards were reported with 89% completion at the Glendale Drive facility.

The HVAC system was designed for maximum energy efficiency, using our own ABB drives manufactured within the facility. One of the special features is an exterior thermal storage system which generates ice at night, when local energy use is low, for the use in the building's air management process during the day, reducing drain on the power grid. Overall, the energy use increased, however, \$45,000 less was spent on electricity. The graph below represents cumulative energy use for the 3 southeast Wisconsin ABB locations.



•Although energy use increased, \$45K less was spent on energy at Glendale due to the commissioning of the new HVAC system which uses energy on off-peak hours

Landfilled waste reduced 60% at Glendale drive due to a more robust recycling program, continued environmental awareness training, and managing environmental impacts when changes to equipment and processes occur. By partnering with a pallet recycling firm, the site saved \$50,000 in disposal costs.

In 2015, all remaining asbestos containing floor tile and mastic was removed from the site. Furthermore, the southeast water retention basin was redesigned to prevent overflow of storm water into the building. All waste soil was reused to make a berm, acting as a barrier between the east parking lot and storm water flow area. Also, the all environmental aspects were re-evaluated, goals for 2016 revolve around the significant aspects identified.



Four spill kits were purchased and placed at all truck loading and unloading locations. These are inspected monthly by the emergency response team. Training was conducted for the Emergency Response Team members and potential users.

The focus for 2016 is the relocation of the Drive Service Repair Center from Emmer Drive to the Glendale Drive location, and ensuring there are no negative impacts to the environment during this project. A management of change process will be used to identify any potential environmental impacts. One goal is to review the industrial waste water generated by the drive washing process and determine how this discharge could have a lesser impact on the sewerage system it is being discharged to.

To promote social progress, ABB participated in the Trek 100. In 2015, the riders from Team ABB, with support from ABB Management and the ABB Foundation raised nearly \$30,000 to support the fight against childhood cancer. Furthermore, the Green Team volunteered with the Urban Ecology Center, whose mission is to foster ecological understanding as inspiration for change, neighborhood by neighborhood. The Green Team has also partnered with the Lions Club to collect and donate used glasses to those in need. Lastly, suitcases and duffel bags were collected for Foster Children as part of the "Together we Rise" campaign.



## **Environmental performance**

### **Transportation**

As a company, ABB reports on the greenhouse gas emissions and environmental impact of business travel in accordance with the Global Reporting Initiative and Carbon Disclosure Project. The facility promotes the use of video conferencing tools to reduce travel between sites and lower our carbon footprint.

At both our Glendale Drive and Discovery Parkway facilities, electric vehicle chargers are provided free of cost to our employees. There is bicycle parking and shower facilities at both sites as well. There is a bus stop near the Glendale Drive facility to facilitate employees who take Milwaukee Public Transportation to work.

### **Supply Chain**

ABB promotes environmental responsibility along the value chain by encouraging suppliers, sub-contractors and customers to adopt international environmental standards through our sustainable supplier development program (SSDP).

Environmental compliance and sustainability is included in our Management of Change process. When we make a change to a process, including materials and suppliers, we evaluate the impact on the recycling program, encouraging the team to select materials that can be recycled.

### **Stakeholder Involvement**

The Green Team onsite is made up of 10 volunteer employees from all aspects of the business: Facilities, Engineering, Supply Chain, & Production. This team has developed communication tools to increase awareness in our environmental sustainability programs. They utilize our shop floor monitors to communicate “green” messages to the teams. Activities in 2015 included a campus clean up and community outreach program at the Urban Ecology Center. We also participated in Earth Hour, a worldwide movement for the planet organized by the World Wide Fund for Nature (WWF). The event is held worldwide annually encouraging individuals, communities, households and businesses to turn off their non-essential lights for one hour as a symbol for their commitment to the planet.

Emergency Response Team Members and other affected employees attended spill response training. Other employees received Environmental Awareness training which included waste categories, recycling initiatives, waste water and storm water awareness. The Health, Safety & Environmental Team attended Hazardous Waste Management and DOT Hazardous Materials Management Training.

The ABB location on Discovery Parkway participated in the Windows into Wauwatosa program. Over 200 community members toured the facility in which the energy efficient tools used were highlighted and the benefits of ABB products as it relates to the environment was explained.



## **DNR Relationship**

Being a Conditionally Exempt Small Quantity Generator without a water or air permit, our contact with the DNR is limited. However, the HSE Manager has made contact with the Waste and Materials Management Department on many occasions. The assistance provided has always been clear, consistent, and delivered in a timely manner.

## **Conclusion**

Environmental stewardship is an integral part of our company commitment to sustainability and is embedded in our strategies, processes and day-to-day business.

ABB is proud to be a Green Tier Participant and is looking forward to sharing many accomplishments in the next report!

**WISCONSIN DNR GREEN TIER  
SUSTAINABILITY METRICS**

Rev. 7/23/2013

Period Covered: 12/1/2014 - 11/30/2015

Company Name:	ABB, INC.
Facility Name:	Glendale Drive
Address:	16250 W. Glendale Drive
City, State, Zip:	New Berlin, WI 53151
Environmental Coordinator:	Nicole M. Broom
Coordinator Phone:	262-785-3217
Coordinator E-Mail:	<a href="mailto:nicole.m.broom@us.abb.com">nicole.m.broom@us.abb.com</a>

Metric	Not Collected/ Not Available	Quantity	Units	Period - if not Calendar Year
<b>DEMOGRAPHICS</b>				
Sales		418M	\$	
Money saved because of material or process improvements		7.5M	\$	
Profit or Loss		17	%	
Employees		317	Each	
Multiple between highest paid and lowest paid employee	NC		%	
Alternative Transportation Support	NA		\$ or ?	
Total Purchases		230M	\$	
In-State Purchases		19M	\$	
% of Purchases Made from Companies that participate in Green Tier or Green Masters:				
<b>LAND</b>				
Total Land		15	Acres	
Paved/Covered Land		4.7	Acres or sq ft	
<b>ENERGY</b>				
Electricity		3566	kWh	
		3	% reduction	
Natural Gas		2015	btu	
Renewable Energy		0	%	
<b>WATER</b>				
Total Water Used		1594000	gallons/year	
		0	% reduction	
Water Recycled/Reused		0	gallons/year	
		0	% reduction	
Regulated Pollutants Discharged		0	lbs/ year	
		0	% reduction	
<b>AIR</b>				
Total Air Emissions	NC		lbs/ year	
	NC		% reduction	
Ozone-Depleting Substances	NC		lbs/ year	
	NC		% reduction	
Greenhouse Gas Emissions	NC		lbs/ year	
	NC		% reduction	
<b>WASTE</b>				
Hazardous Waste Disposal		158	lbs/ year	
		4	% reduction	

Non-Hazardous Waste Disposal		86518	lbs/ year	
		64	% reduction	
Material Recycled/ Reused		370424	lbs/ year	
		7	% increase	
Recycled/ Reused Content		0	% of product	
<b>TRANSPORTATION</b>				
Hybrid Vehicles	NC		Each	
Gasoline Used	NC		Gallons	
Diesel Used	NC		Gallons	
Alternative Fuels Used	NC			
<b>ADDITIONAL METRICS</b>				
Please list all other certifications (for example: LEED, Energy Star, ISO 14001):			ISO 14001	
			Green Masters	