



# Gary Cluck

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Brother International

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## *Working with you for a better environment*

### **Creating and delivering high-quality, environmentally preferable products**

Brother is committed to creating and delivering high-quality, eco-conscious products by addressing the product life cycle from material procurement, production, products use, and through to the collection and recycling at the end of life.

Guided by the 5Rs – Refuse, Reduce, Reuse, Reform, and Recycle – Brother is helping achieve sustainable development by positively and continuously considering the environmental impact of all aspects of our business operations.

### **Key practices include:**

#### **CO<sub>2</sub> EMISSIONS AWARENESS**

The Brother Group is committed to reducing CO<sub>2</sub> emissions of the entire value chain in all its business operations by 2050 and contributing to creating a carbon-free society, which is a mission for the global community.

Many copier or print manufacturers require onsite service or repairs each time a device breaks down or malfunctions, which means a service technician can be driving back and forth to the site regularly over the life of a product.

The more times a device requires onsite service, the more times a technician may need to travel to and from a company. This travel may use unnecessary gas and if traveling by car, may also create CO<sub>2</sub> waste emissions for multiple car trips.

Should the device need to be replaced, as an alternative, Brother customers are eligible for the Express Exchange Program under Brother's Major Account Program, which offers overnight shipment of a replacement unit in the event of a defective Brother machine.



## ENERGY STAR®-COMPLIANT PRODUCTS

Brother offers a wide range of printers and multi-function equipment that are ENERGY STAR® compliant. Those that have earned the ENERGY STAR, conserve energy while providing great performance.

Product benefits include:

- Power management to help conserve energy when in use
- Sleep mode to help reduce energy consumption when not in use



## A COMMITMENT TO MEETING EPEAT REQUIREMENTS

EPEAT is the leading global ecolabel for the IT sector. EPEAT-registered imaging products meet an extensive list of environmental-based criteria covered in the IEEE 1680.2 Standard for Environmental Assessment of Imaging Equipment.

EPEAT rated Brother printers and all-in-ones are listed in the EPEAT online Registry.



## ISO 14001 STANDARDS AND GUIDELINES

Employing guidelines and processes based on ISO 14001, Brother has implemented an ISO 14001:2015 Certified Environmental Management System that demonstrates our commitment to pollution prevention, environmental regulatory compliance, and continual improvement.

ISO 14001 is an international standard, as defined by the International Organization for Standardization (ISO), that specifies the requirements for an environmental management system that an organization can use to enhance its environmental performance.

**To learn more about Brother's commitment to eco-conscious product development and environmental conservation activities, visit <https://global.brother/en>.**



# Energy Efficiency

Why it's a priority for Brother



## Who we are...

Premier provider of home, home office, and business products

- Printers, All in Ones, Multi-Function
- Labeling Solutions
- Mobile Printers
- ScanNCut, DesignNCut
- Industrial Garment Printers
- Home Sewing & Embroidery
- Industrial Sewing Machines
- Gear Motors, Machine Tools & more



## Why it matters...

### The Brother Group Environmental Vision 2050

- Long-term continuous focus on these priority items
  - Reduction of CO<sub>2</sub> emissions
  - Resource Circulation
  - Biodiversity Conservation
- To address the escalation of environmental problems
  - Climate Change
  - Depletion of resources
  - Pollution caused by waste
  - Disruption of the ecosystem (loss of biodiversity)



## Carbon Emissions in the US...



- More than 82% of greenhouse gas emissions are Carbon Dioxide (CO<sub>2</sub>)
- The main human activities that emit CO<sub>2</sub> is the burning of fossil fuels
  - For energy (33%)
  - For transportation (34%)
  - For industrial processes (15%)

## Energy and Emissions at Brother...

- Primary Emission Sources
  - Energy usage at Brother offices
  - Transportation of Brother products
- Long-term data collection
- Established objectives and targets for reduction
- Implemented numerous initiatives to reduce consumption





## Actions taken ...

- Installed thermoplastic polyolefin (TPO) roofing membrane
  - Environmentally friendly
  - Lower surface temps
  - Greater energy efficiency
  - Superior puncture resistant and stays flexible in cold weather



## Actions taken ...



- Modified Lighting
  - Installed LED lighting in office and building exterior
  - Installed T6 in parking areas with motion detection
  - Installed T8 in warehouse areas
- Building HVAC
  - Installed warehouse fan system to increase airflow and reduce chiller usage to 1 of 3 chillers
  - Installed high efficiency DX AC units

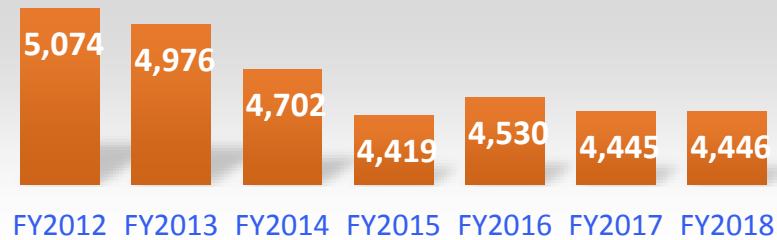
## Actions taken ...



- Installed two 60kW Solar Farms
  - Annual Energy Generated
    - 150,000-165,000 kWh's
  - Annual Revenue
    - \$35,000-\$40,000
  - Installed TVA Demand Response Program

## Energy Results ...

### Energy Emissions (CO<sub>2</sub>) 2012-2018



**12%**  
cumulative  
reduction in  
energy  
emissions  
across the  
Americas in  
six years!



## Actions taken ...

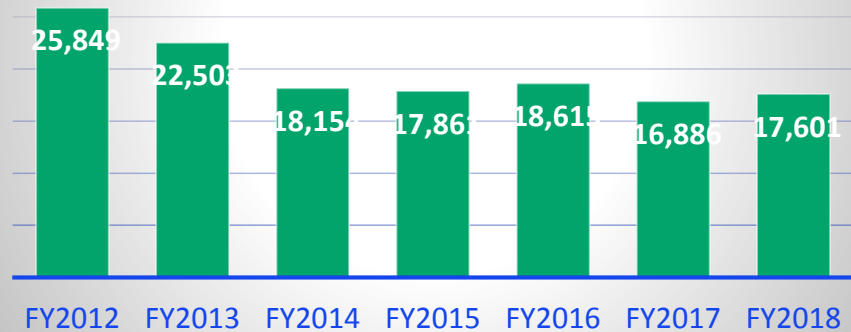
- Established a third US distribution center on the east coast (ECDC) in 2014
- Added a distribution center in Brampton, Ontario (Toronto) in 2017 that further reduced transportation related emissions for product distribution



## Transportation Results ...

More than  
**31%**  
Reduction in  
transportation  
related  
emissions over  
six years!

### Transportation Emissions (CO<sub>2</sub>) 2012-2018



## Recognition...



Energy Star Certified Building



Tennessee Governors Environmental Stewardship Award Recipient



5R Award Recipient  
*-Brother's Global Environmental Recognition Program*



Certified to the ISO 14001:2015 standard for environmental management systems



## Why we do what we do...



- Less energy consumption equals less emissions for the planet and less costs for Brother
- Shorter distances equals fewer emissions and faster delivery for our customers
- No longer is a benefit to the environment in opposition to the business
- Today our business is stronger because of our environmental commitment