



*A Passion for  
Flavor*

Green Manufacturing at  
McCormick & Co.

Harford County Green  
Business Network

June 16, 2011

Jeff Blankman  
*Sustainable Manufacturing Manager*



# Agenda



- ▶ Background
  - ▶ Why Now?
  - ▶ Evolution of Corporate Social Responsibility
  - ▶ Triple Bottom Line
  - ▶ Corporate Results & Goals
- ▶ Lean & Green Manufacturing Focus Areas
  - ▶ Energy Efficiency
  - ▶ Renewable Energy
  - ▶ Waste Reduction
  - ▶ Water Reduction
- ▶ Questions/Discussion





# McCormick Sustainability



- ▶ McCormick has a long history of stewardship and sustainability has always been a core value
- ▶ Focus has increased recently due to:
  - ▶ Energy's financial and environmental costs
  - ▶ Society's changing values
  - ▶ Customer interest
  - ▶ Peer companies' efforts

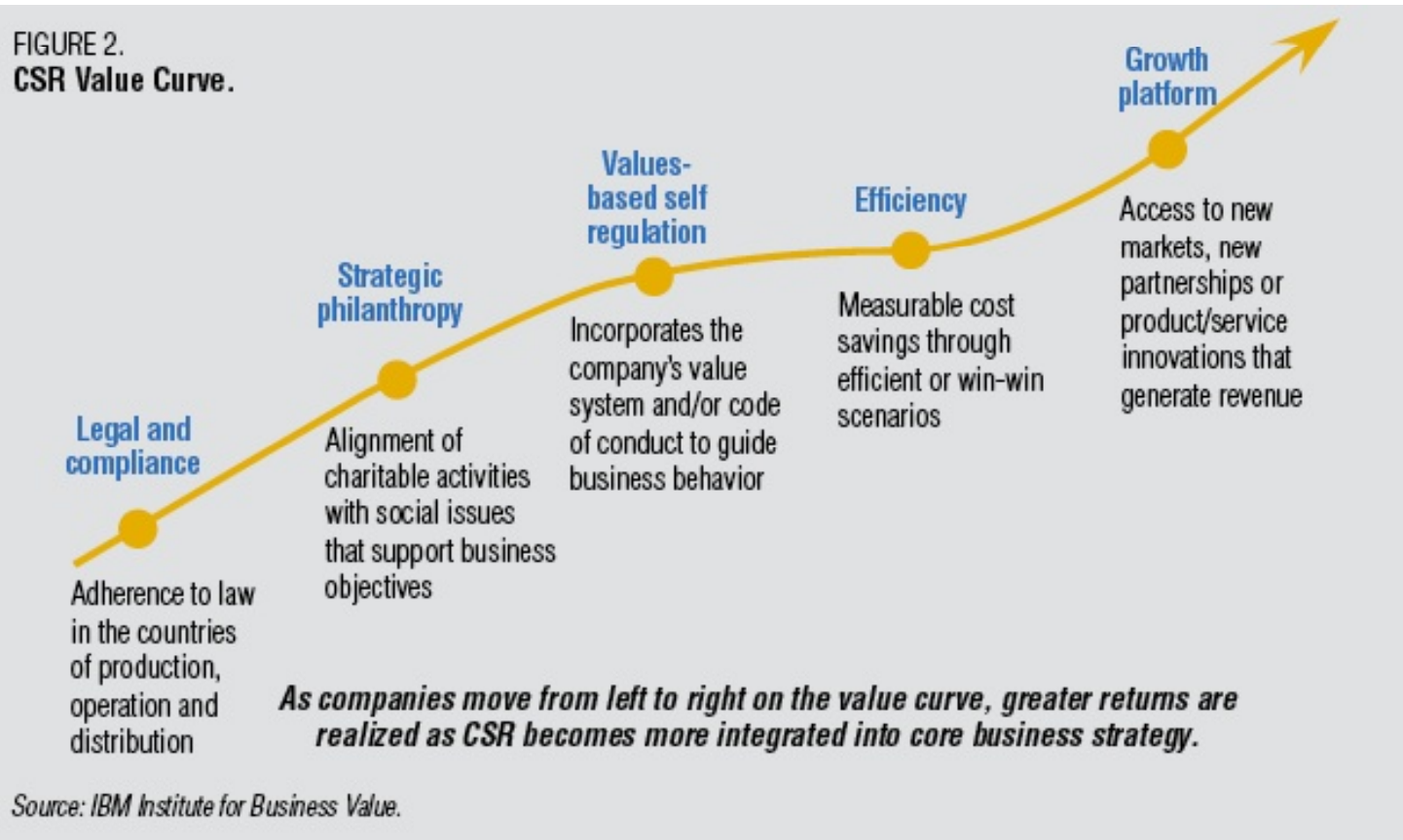




# CSR Value Curve



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# Triple Bottom Line Approach People, Planet, Profit



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## Corporate Results thru 2009



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- ▶ Energy Efficiency – 17% reduction since '05 (goal of 15% by 2010 reached 1 year early)
- ▶ Solid Waste – 22% reduction (vs. goal of 10%)
- ▶ Water – 26% reduction
- ▶ Greenhouse Gas Emissions – 23% reduction





# Corporate Goals for 2015



- ▶ Goals recently established for 2015, per unit, baseline 2009
  - ▶ Electricity – 10%
  - ▶ Solid Waste – 10%
  - ▶ Water – 10%
  - ▶ Greenhouse Gases - 5%



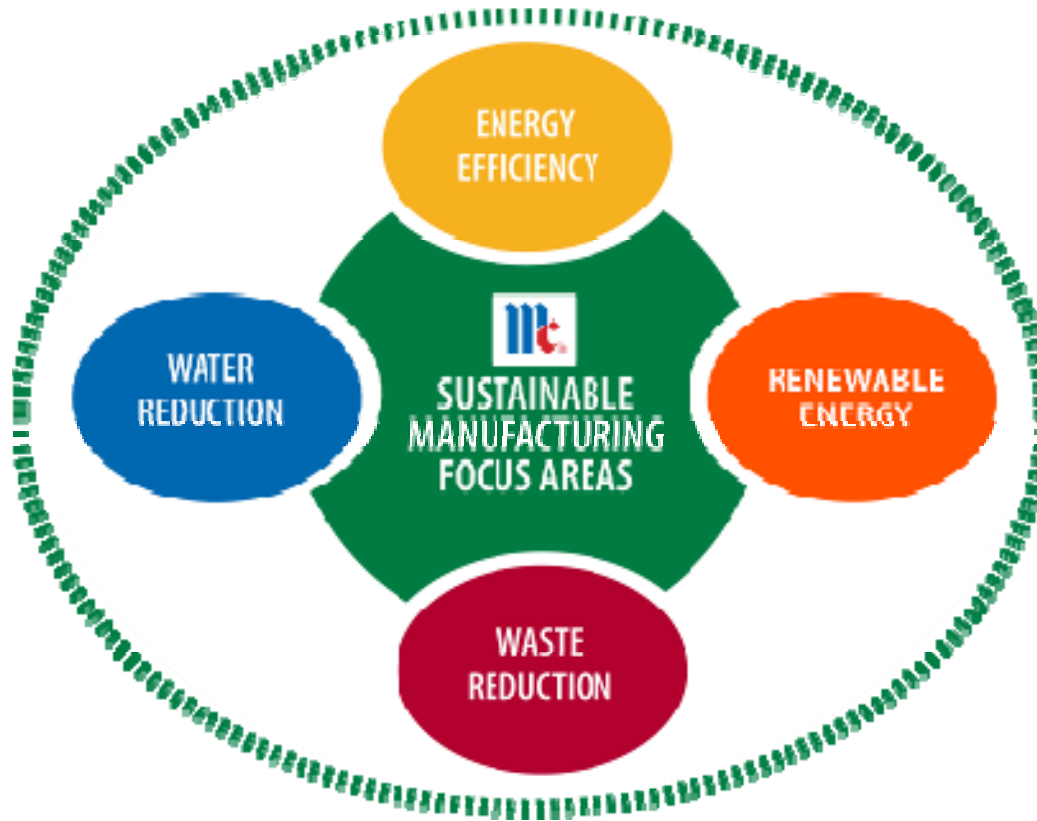


# Focus Areas



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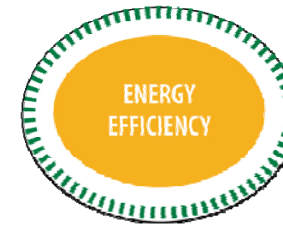
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# Energy Efficiency Initiatives

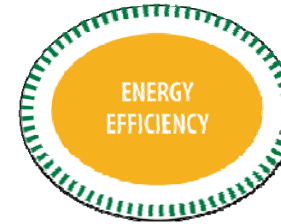


- ☑ Lighting – more efficient fixtures/lamps and sensors
  - ☑ Warehouse/Production High Bay Areas – **50%** reduction
  - ☑ Offices/Store Rooms – **30%-60%** reduction
  - ☑ Emergency Exit Signs – **95%** reduction
  - ☑ Parking Lot/Exterior – **75%** reduction
  - ☑ Lamp Spec Changes – **12%** reduction
    - ☑ 28 watt T8 vs. 32 watt
      - ☑ 12% reduction in energy, 1-2% reduction in light
      - ☑ \$.50 cost premium => \$10 electricity savings over 20,000 hr life
    - ☑ 47 watt T5 vs. 54 watt





# Energy Efficiency Initiatives

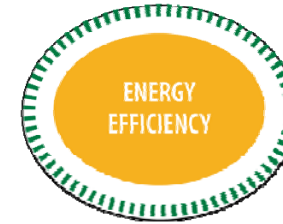


- ☑ Waste heat recovery - **80%** reduction
  
- ☑ High efficiency motors – **6%-8%** reduction
  - ▶ Typical energy savings of 8% over standard efficiency
  - ▶ 40 hp motor that costs \$2,000 will consume \$2,500/month in electricity (24 hr operation)
  - ▶ Large motors that operate continuously may justify replacement before failure
  - ▶ Re-building old motors significantly affects efficiency, cost savings is more than offset by increased electricity consumption





# Energy Efficiency Initiatives



- ✓ Lower temperature adhesives for gluing boxes - **70%** reduction
- ✓ Compressed air upgrades – “trim” compressor modulates output according to demand
- ✓ “Sleep” modes for dust collectors, conveyors and equipment
- ✓ Chilled water HVAC system
- ✓ Energy Star reflective roof, proper insulation





# Renewable Energy Initiatives



## Hunt Valley, MD Project

- ▶ 4-acre system, over 6,000 panels
- ▶ Rated at 950 kilowatts, generates the equivalent power consumed by 100 homes
- ▶ Power Purchase Agreement with Constellation Energy

Represented **1/3** of the entire solar capacity in MD at the time of installation





# Renewable Energy Initiatives



## Belcamp, MD project

- ▶ 8-acre system, over 8,000 panels
- ▶ Rated at 1,800 kilowatts, generates the equivalent power consumed by 195 homes
- ▶ Similar Power Purchase Agreement with Constellation

McCormick's solar projects represent **20%** of the entire solar capacity in MD





# Waste Reduction Initiatives



## Recycled items:

- Scrap metal
- Corrugated cardboard
- Office paper
- Plastics
  - Stretch Wrap
  - Bags / Liners
- Organic waste composting





# Waste Reduction Initiatives



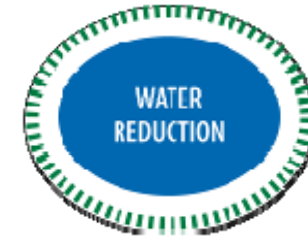
## Corrugated Reuse Program

- ▶ UsedCardboardBox buys boxes from McCormick at rates > recycling
- ▶ Boxes are re-used vs. recycled
- ▶ Ideal scenario sends boxes back to original vendor





# Water Reduction Initiative



- ☑ Replaced water-cooled equipment with air-cooled equipment



Resulting in an estimated  
**40%** reduction in water  
consumption







# Other Initiatives



## ☑ Sustainable Packaging

- ☑ Lightweighting plastic bottles
- ☑ Reduced box flap sizes
- ☑ Non-bleached (natural “kraft” color) vs. bleached white corrugate
- ☑ Higher recycled content boxes and cartons
- ☑ Thinner gauge stretch wrap films





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# Questions/Discussion

