

Xerox's GHG Reduction Initiative

**Mandy Applin
Catherine Reeves
Xerox Corporation
June 2, 2010**

**Energy
Challenge
2012**

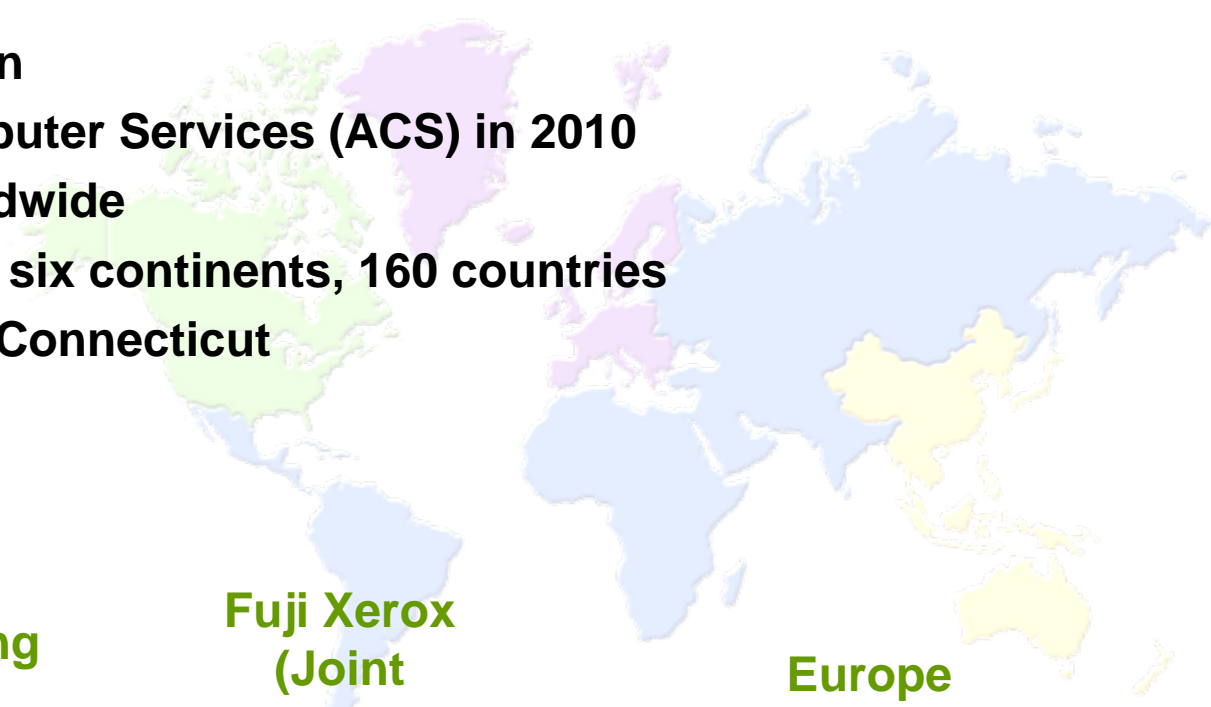
Be energy **smart** today
to **preserve** tomorrow

Xerox's GHG Reduction Initiative

- *About Xerox*
- Why did Xerox commit to reduce greenhouse gas emissions?
- How did we get started?
- What is our approach to reaching our goal?

Xerox at a glance

- **2009 Revenue: \$22 billion**
- **Acquired Affiliated Computer Services (ACS) in 2010**
- **130,000 employees worldwide**
- **Customer operations on six continents, 160 countries**
- **Headquarters: Norwalk, Connecticut**
- **www.xerox.com**
- **NYSE: XRX**



North America

Developing Markets

Fuji Xerox (Joint Venture)

Europe

Canada
United States

Africa
Eastern Europe
Latin America
Middle East, South Asia
Russia

Asia Pacific
Australia
New Zealand

Austria
Belgium
Denmark
Finland
France

Germany
Greece
Holland
Italy
Norway

Portugal
Spain
Sweden
Switzerland
UK

Xerox offers the document industry's broadest portfolio of document technology, services and software; and the most diverse array of business process and IT outsourcing support.

Technology

**Document systems,
software and integrated
solutions**

- For the workplace
- For production print environments

Services

**Help companies boost
productivity and lower
costs**

Outsourcing

**Business Process
Outsourcing**

**Information Technology
Outsourcing**



Xerox's commitment to reduce greenhouse gas emissions



- We've named our internal program **Energy Challenge 2012** because nearly all of Xerox's GHG emissions are linked to our use of energy.

Original Goal: Reduce total company-wide GHG emissions 10% lower than 2002 levels, by 2012 (*met and claimed early achievement in 2006*)

In 2007, Xerox created a new goal: Reduce total company-wide GHG emissions 25% lower than 2002 levels, by 2012

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Environmental commitment is inherent in Xerox core values

“To us, ***sustainable development*** is a race with no finish line. It requires ***leadership*** that sets high expectations and clear direction, partnerships that inspire collaboration and ***innovation*** that constantly pushes the frontier of what is possible”.

Xerox values

- We succeed through satisfied customers.
- We deliver quality and excellence in all we do.
- We require premium return on assets.
- We use technology to develop market leadership.
- We value and empower our employees.
- We behave responsibly as a corporate citizen.



Ursula Burns
Chairman & CEO

Why Did Xerox Decide to Set an Emissions Reduction Goal ?

Energy
Challenge
2012

Be energy **smart** today
to **preserve** tomorrow

- Maintain environmental commitment and leadership -- Support Environmental Goals

US EPA
Climate Protection
Award

- Prepare for potential future regulation



- Meet stakeholder and market expectations

Aggressive Goal:
Reduce absolute
(total) emissions
25%2002-2012

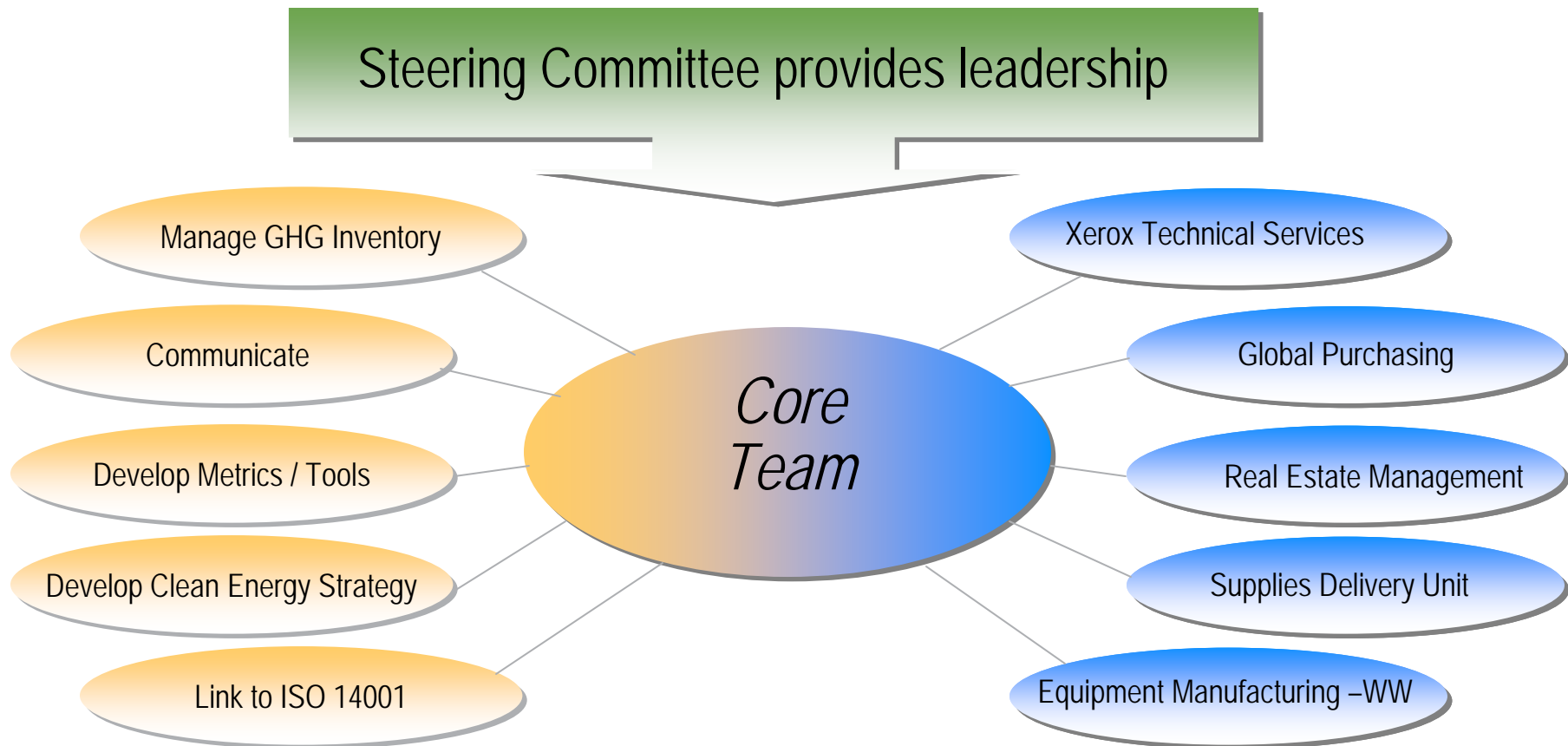
- Reduce energy spend

Opportunity
for cost
avoidance

Xerox's GHG Reduction Initiative

- About Xerox
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- *How did we set our goal?*
- What is our approach to reaching our goal?

1- Established management structure to ensure full value chain engagement and support



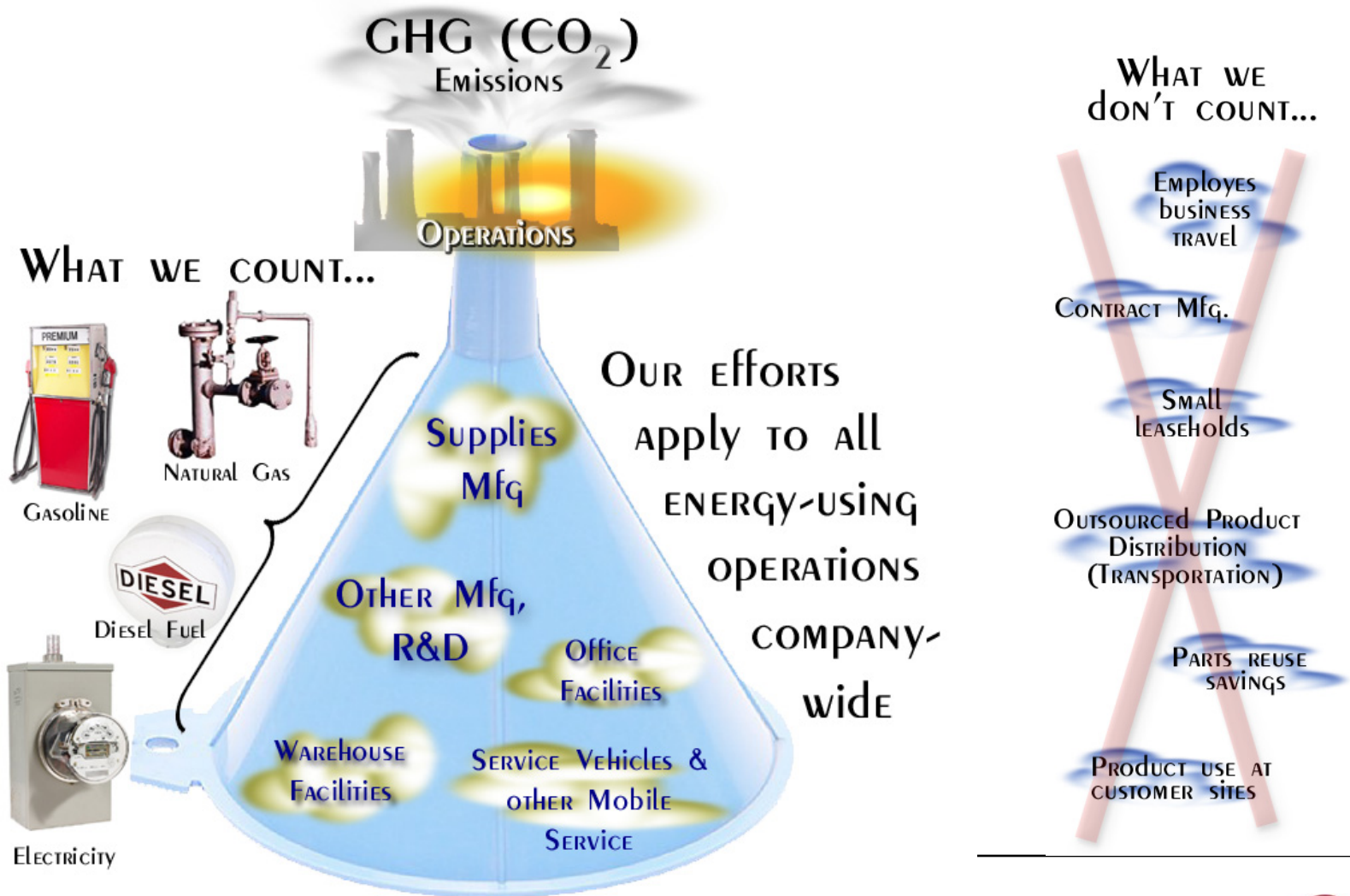
EH&S provides leadership and guidance

Business teams execute to get results!

Over 50 employees directly involved

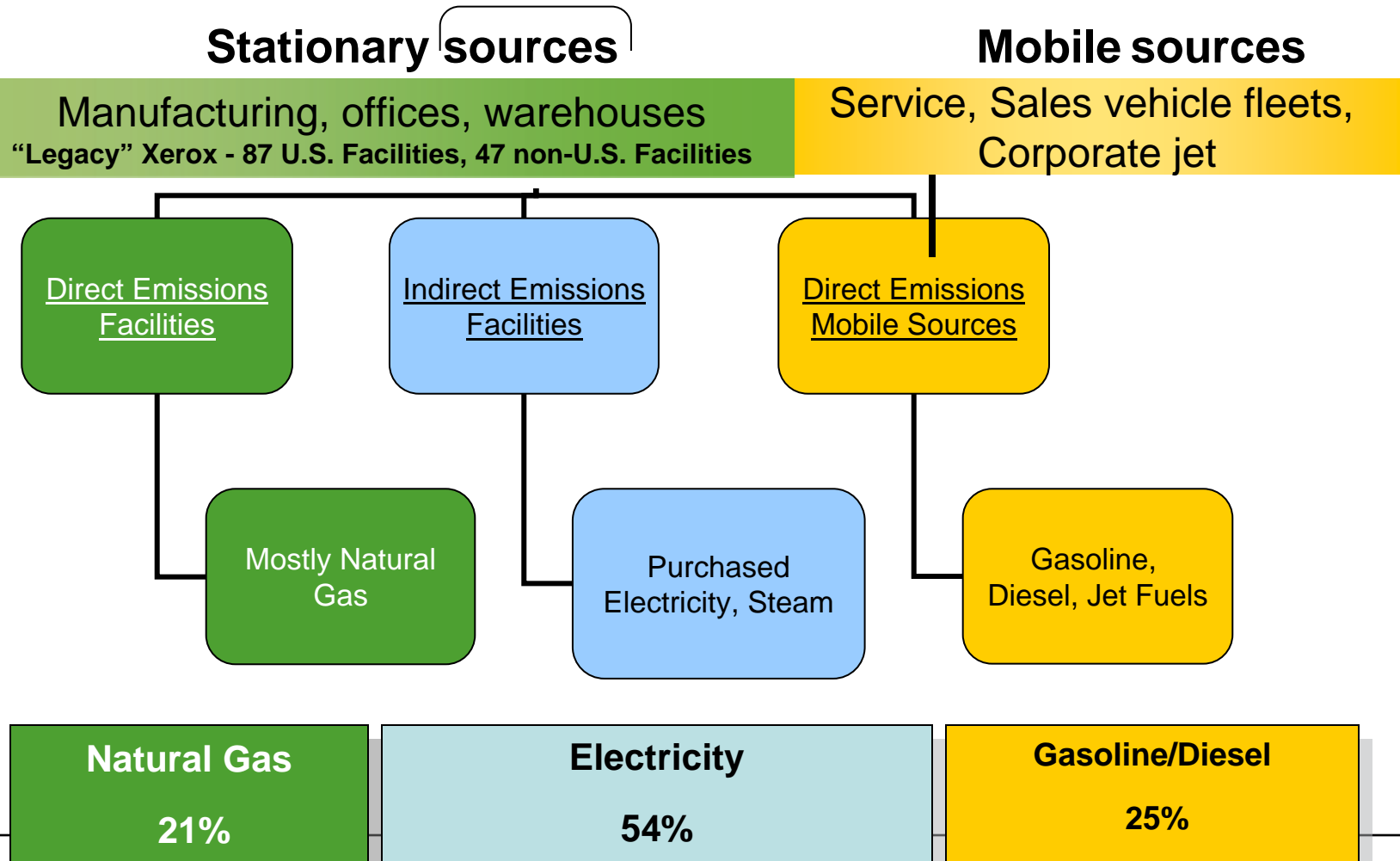
2- Set the boundaries

Energy Challenge 2012 covers energy-using operations within Xerox's direct control



3- Quantified Current State

The GHG Protocol and Climate Leaders guidance were followed in defining boundaries of Xerox's GHG inventory

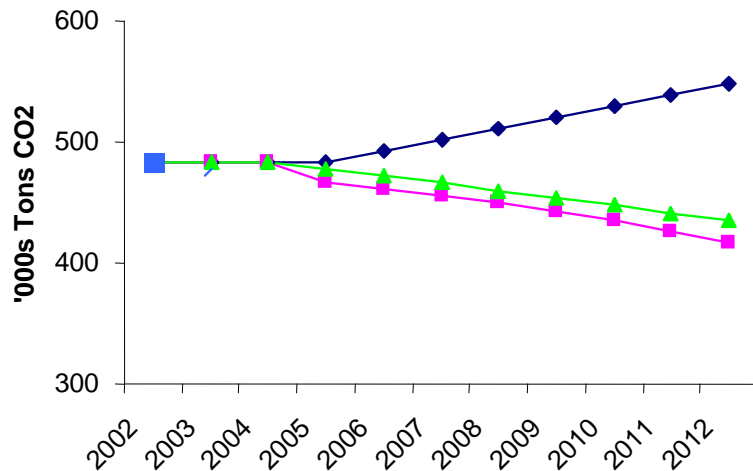


4- Estimated reduction target based on projected energy demand and potential for reduction

Estimated Energy Demand and associated CO₂ emissions without energy savings initiatives



Estimated thousands of tons CO₂e to be saved annually by 2012 in project areas



■ Technology /Manufacturing Operations

■ Facility/Site Efficiencies: (infrastructure, equipment efficiencies)

■ Service vehicle productivity (fleet)

■ Clean energy potential

Concluded 10% absolute reduction would be challenging but feasible

5- Decided whether Target should be expressed in Absolute or Normalized Terms

Develop scenarios

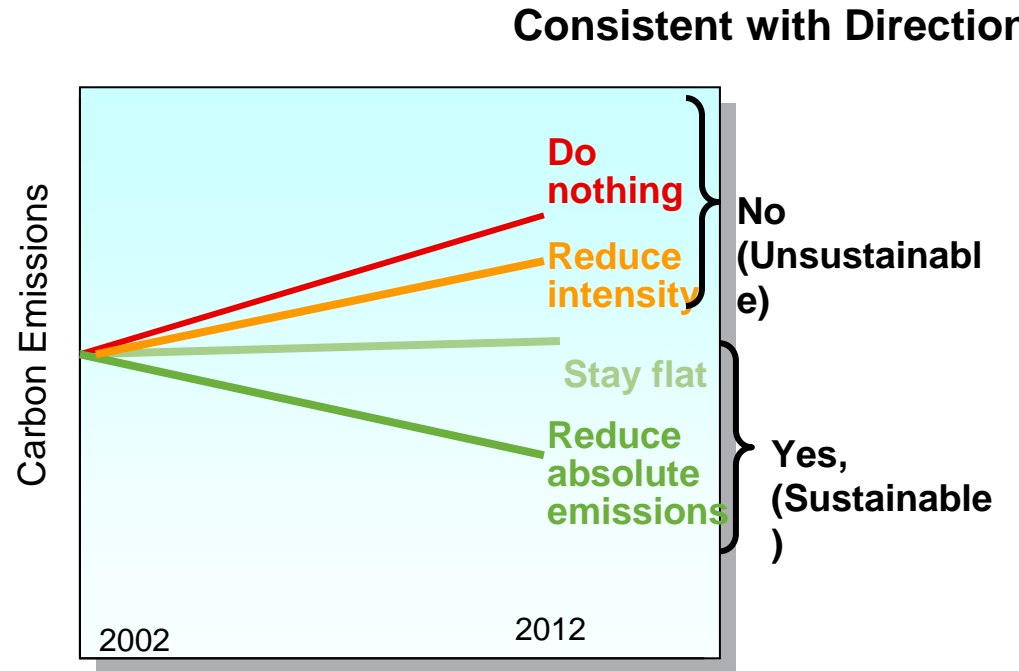
Do nothing – Xerox’s carbon emissions would increase by estimated 15-27% through 2012

Reduce intensity of carbon emissions at U.S. target level (18%). Emissions would grow significantly.

Stay flat = no increase in carbon emissions, offsetting company growth

Reduce absolute amount of carbon emissions, despite company growth

- **Set target consistent with direction and reduction opportunities**

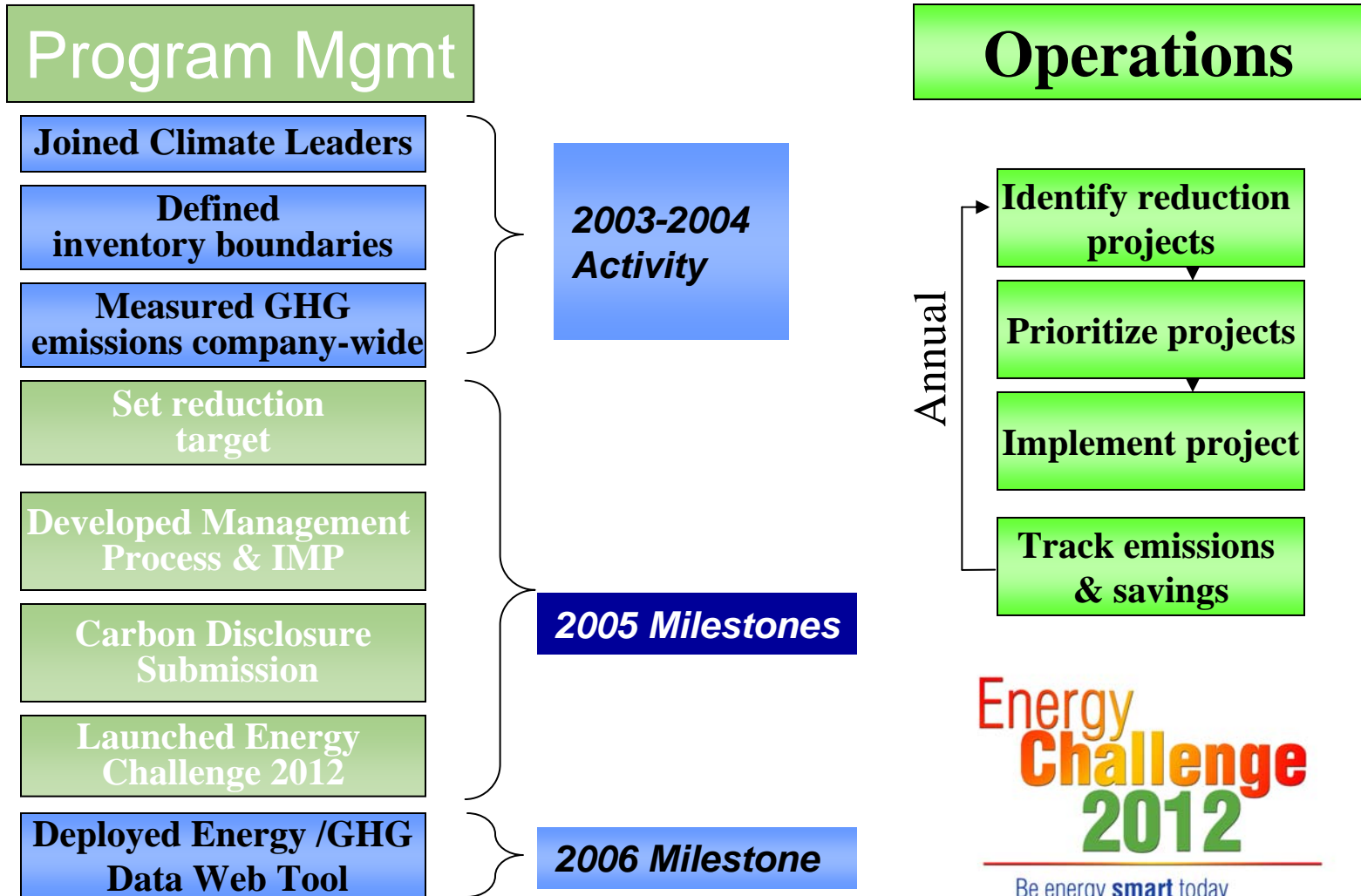


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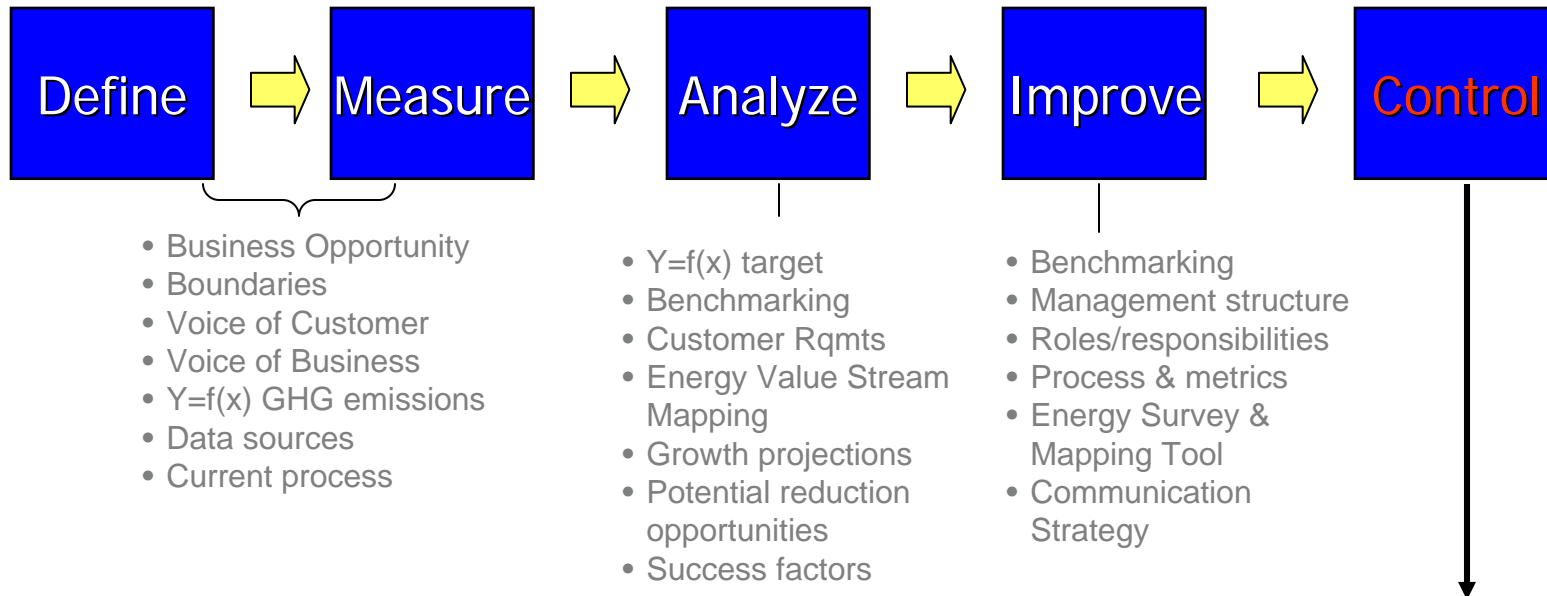
Xerox's GHG reduction program developed over three years



**Energy
Challenge
2012**

Be energy **smart** today
to **preserve** tomorrow

LSS methodology was used to develop reduction target, management and data collection process

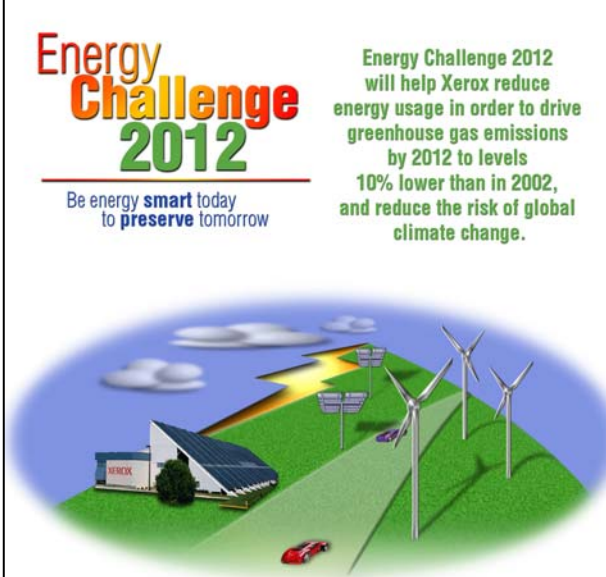


- Launch Energy Challenge 2012 (communication strategy & umbrella program)**
- Pilot management process**
- Develop roadmap for future reductions to achieve our goal**
- Pilot tools to support Energy & GHG reduction process**
- Best practice sharing**
- FMEA**

Developed communication program to build internal awareness and support

Communication program gives the program an identity and encourages all employees to take action:

- Company webboards – worldwide
- Interactive web site allows energy savings tip
- Management communiqués
- Newsletters & Posters



The poster features the title 'Energy Challenge 2012' in large, colorful letters. Below it is the slogan 'Be energy smart today to preserve tomorrow'. To the right, a text box states: 'Energy Challenge 2012 will help Xerox reduce energy usage in order to drive greenhouse gas emissions by 2012 to levels 10% lower than in 2002, and reduce the risk of global climate change.' The central illustration shows a green landscape with a Xerox building, a red car, wind turbines, and solar panels under a blue sky with a yellow lightning bolt.

Energy Challenge 2012

Be energy **smart** today
to **preserve** tomorrow

Energy Challenge 2012 will help Xerox reduce energy usage in order to drive greenhouse gas emissions by 2012 to levels 10% lower than in 2002, and reduce the risk of global climate change.

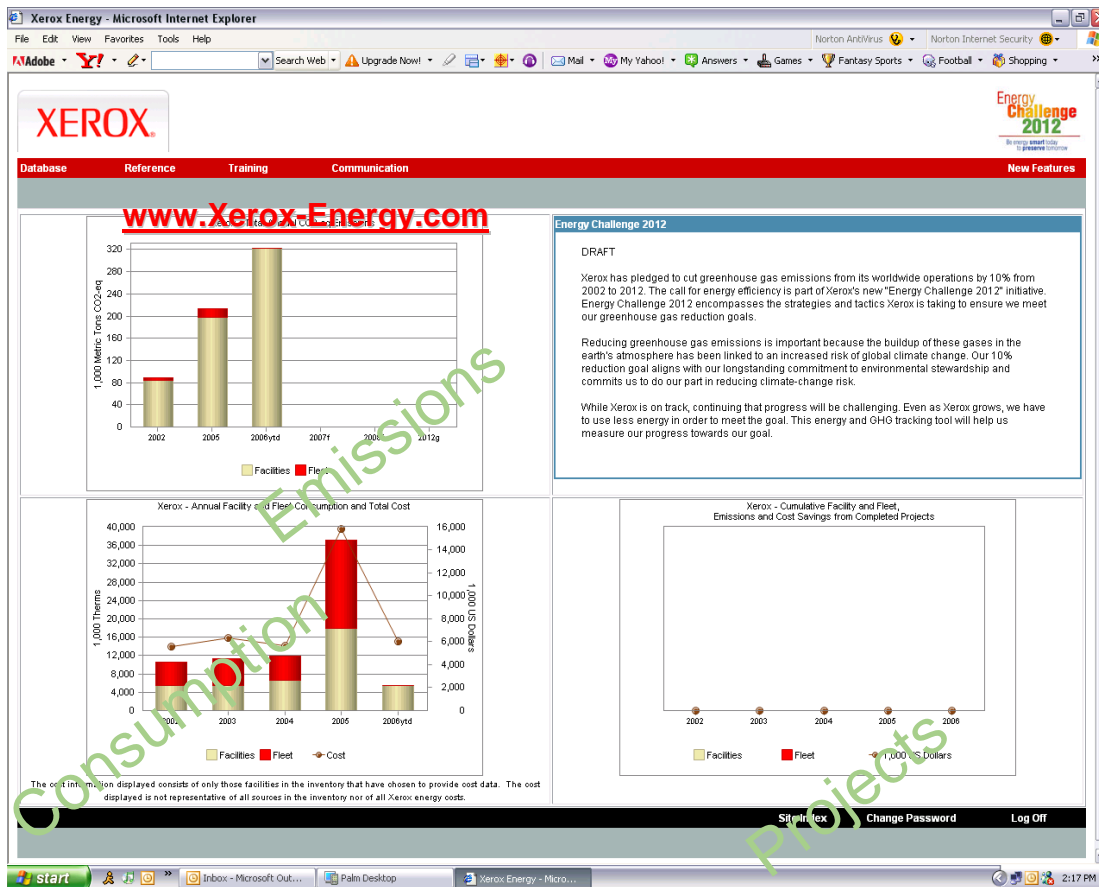
Find new ways to save energy.

- ⚡ Support the efforts of your local energy teams and look for opportunities to streamline processes.
- ⚡ Follow approved power-down procedures to ensure that process equipment, lights and electronics are only used when needed.
- ⚡ Keep dock doors and man-doors closed to prevent loss of heated or air-conditioned air.
- ⚡ Follow approved procedures for preventive maintenance of energy-using equipment like motors and compressors.
- ⚡ Share other energy saving opportunities with co-workers and management.

Aliso Viejo Operations / Contract
400 Franklin (Daguerre Parkway Blvd) #222-4197
Maricopa Valley (Production Systems Manufacturing) #225-4382
Grand Central (Office Group - Wilmington) #979-3833

XEROX.
Technology | Document Management | Consulting Services

Implemented a company-wide process for collecting and retaining high-quality and verifiable energy data for use in GHG inventory



Migrated from spreadsheet data collection 'system' to

Johnson Controls Inc. Energy and Emissions Management Tool

User feedback positive
- "Easy to use"

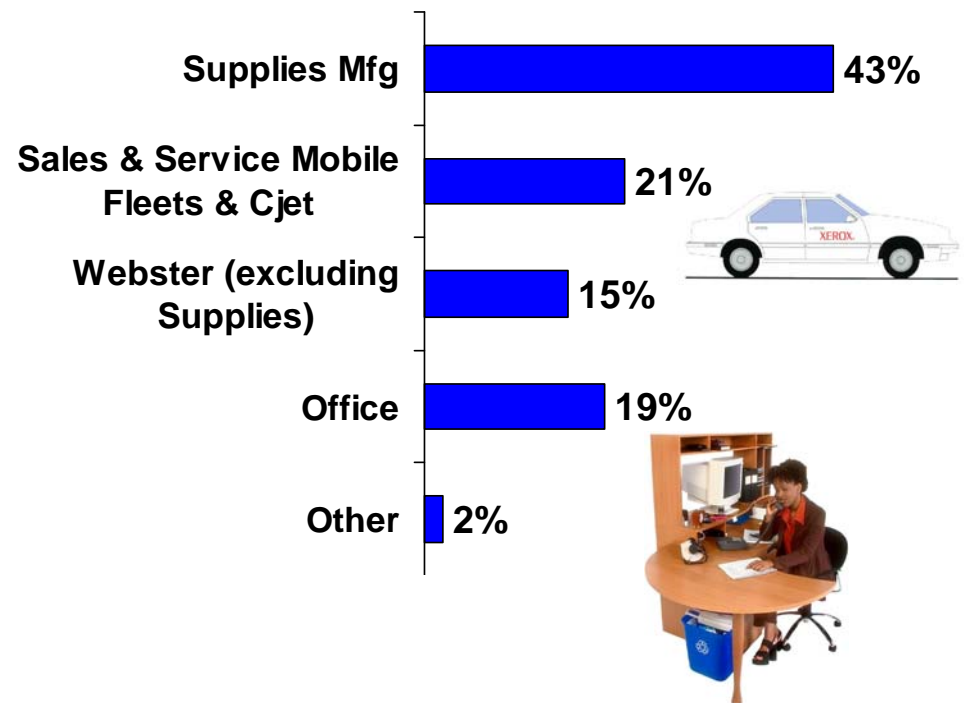
Automatic Data transfer from 3rd party billing systems

Energy Efficiency and Conservation

- All employees can be engaged in this effort.
- Lots of small projects add up to big savings.
- The “way we work” can have a big effect on energy use:
 - From shutting of the product equipment, lights and computers when not in use...
 - To sophisticated call management that reduces miles driven by service technicians.



Distribution of GHG Emissions by Operations



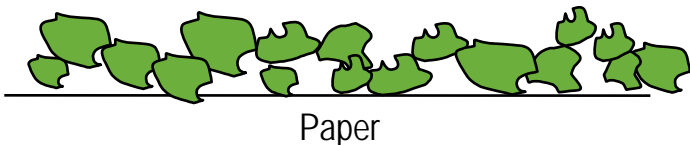
New technologies deliver environmental benefits to our customers and support Energy Challenge 2012

Emulsion Aggregation (EA) Toner

Breakthrough process for producing color and black toners:

- Less toner mass per page for smaller toner.
- Less toner waste for spherical toner.
- Less energy to produce and to print.

Conventional Toner



Small & Spherical EA Toner



40%- 45%
less toner
mass

Xerox's new EA Toner Plant Design

Plan designed around the process to be ultra-efficient



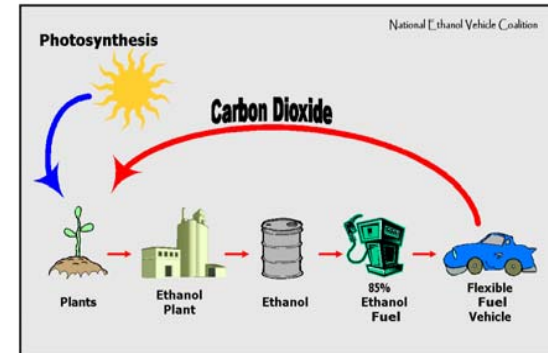
- "Intelligent" building.
- Building is packed with > 3000 sensors that feed into network to control energy use throughout "zones".
- Variable speed chillers, compressors & variable intensity lighting.
- Process design maximizes throughput, minimizes energy use.

New car technologies and alternative fuels present opportunities for significant GHG reductions

More than 10,000 vehicles worldwide

From 2002-2009, 23% reduction in GHG emissions.

- Hybrid technology – expect more options in future; Prius piloted in 2006.
- Clean diesel engines and fuels – available today in Europe.
- “Bio-fuels”
 - Ethanol or E85 fuels.
 - Xerox is well positioned - 40% of US fleet is “flexible fuel”.
- GPS installed technology – when adopted will reduce miles through better call management.
- Hydrogen fuel cells.
 - Probably after 2012.



On our way to Achieving our Goal of 25% Carbon Emission Reductions 2002 - 2012



Electricity reduced by 36 %
Natural Gas reduced by 20 %

Energy Reduced in Facilities

- Energy/Building Management Systems
- HVAC Upgrades & Optimization
- Lighting
- Intermittent Boiler Controls
- Building & Operations Consolidations
- Business Process Optimization

Technology/Manufacturing Changes

- Toner E-Agent – improved grinding throughput
- Toner particle size optimization
- Grinding efficiency (e.g. running in off peak hours)

Mobile fuel reduced use by 25 %

Service fleet productivity

- Product reliability, longer life parts
- Call management
- Improved fuel efficiency

Identified fundamental program elements to enable success

Successful Energy Challenge program

Leadership commitment

- High level direction
- Resources enabled

Clear roles & accountability

- Defined success metrics
- Stretch targets

Full value chain engagement & support at all levels

- Leadership
- Communication of value

Integration into core business strategies & processes

- Working team efforts
- Consideration in investment decisions

Appropriate funding / investment

- Leadership
- Sound business case
- Long term view

Successes rewarded & communicated

- Clear success metrics
- Effective communication
- R&R strategy

Strong program management

- Leadership
- Clear accountability