Energy & Greenhouse Gas Management

October 22, 2008
ENERGY STAR Monthly Partner
Web Conference

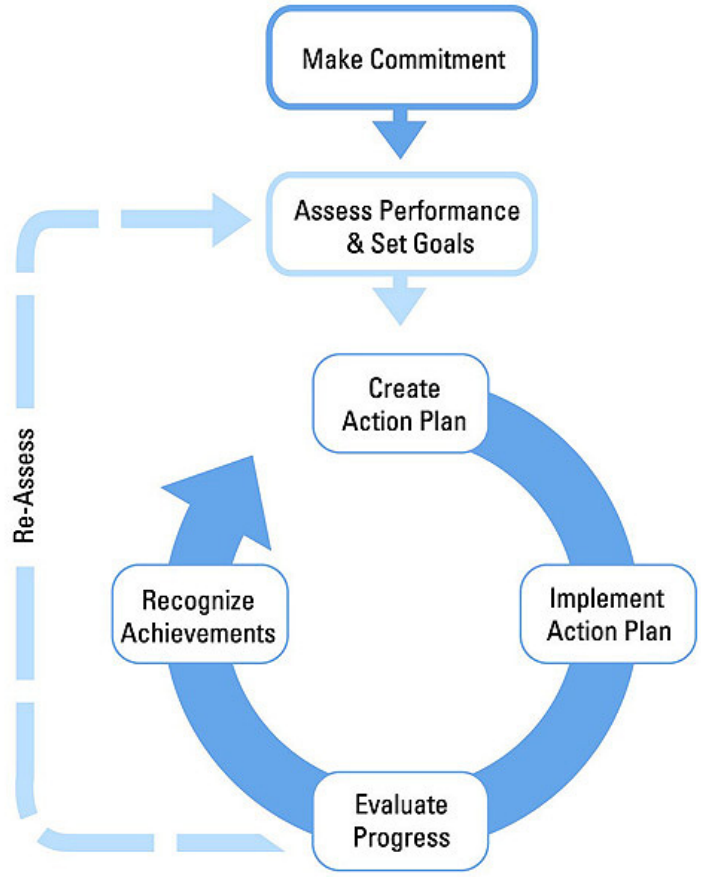
Call-in Number: 1-866-299-3188
Conference Code: 202 343 9965

EPA

Learn more at **energystar.gov**

About The Web Conferences

- Monthly
- Topics are structured on a strategic approach to energy management
- Opportunity to share ideas with others
- Slides are a starting point for discussion
- Open & Interactive

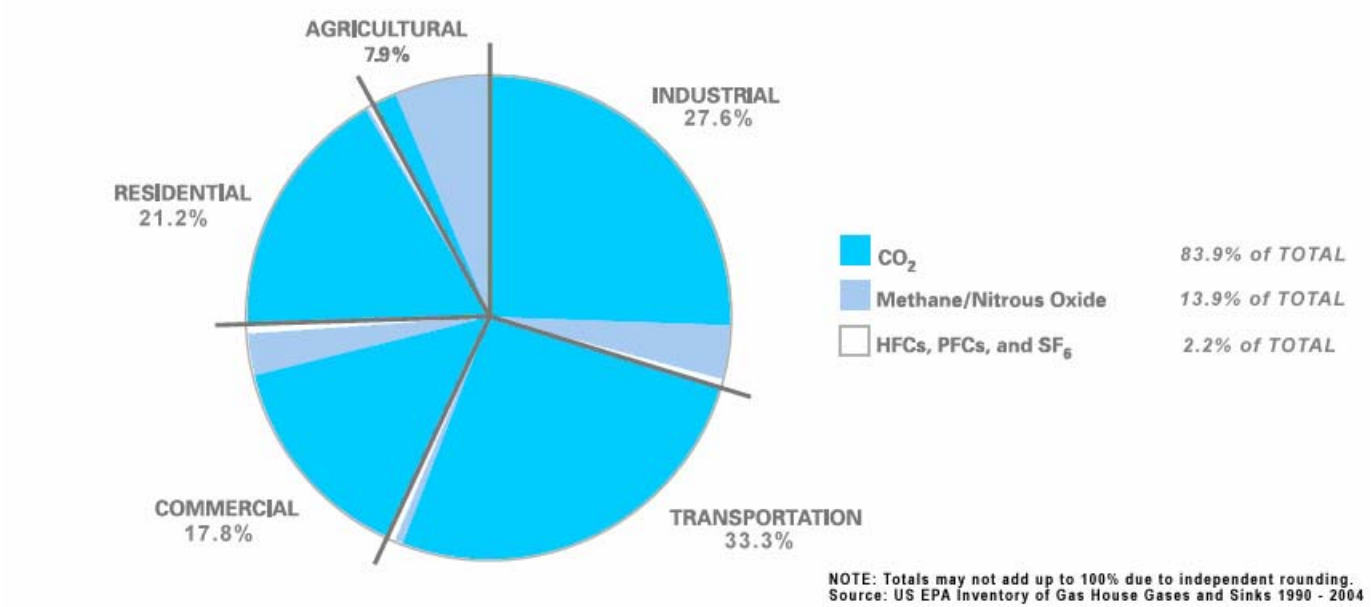


Web Conference Tips

- Mute – To improve sound quality, all phones but the presenters will be muted.
- Use # 6 to un-mute and * 6 – to mute
- Presentation slides will be sent by email to all participants following the web conference.

The Link to Climate Change

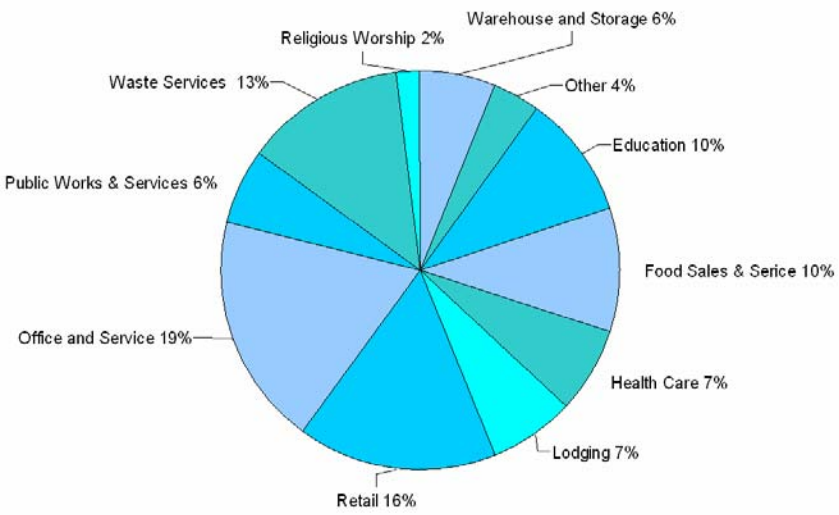
- 85% of US GHG emissions are from CO2
- Energy use is the primary source of CO2 emissions



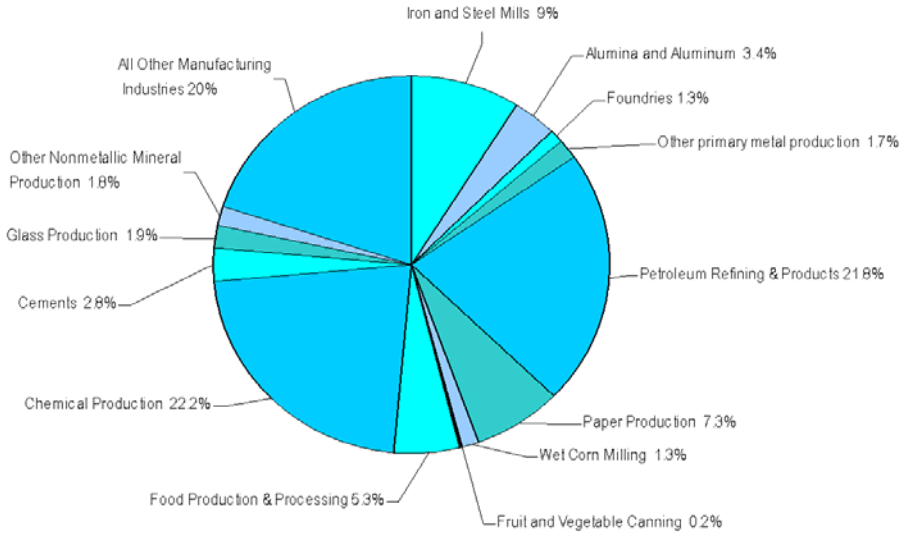
Sector CO2 Emissions

Distribution of Commercial and Industrial CO2 emissions (Direct & Indirect) associated with energy use.

Commercial 17.8%



Industrial 27.6%

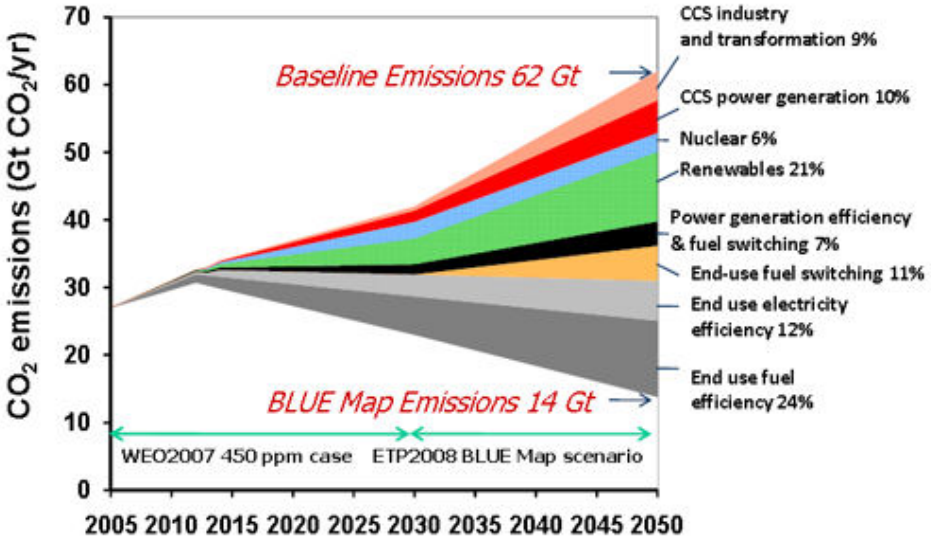


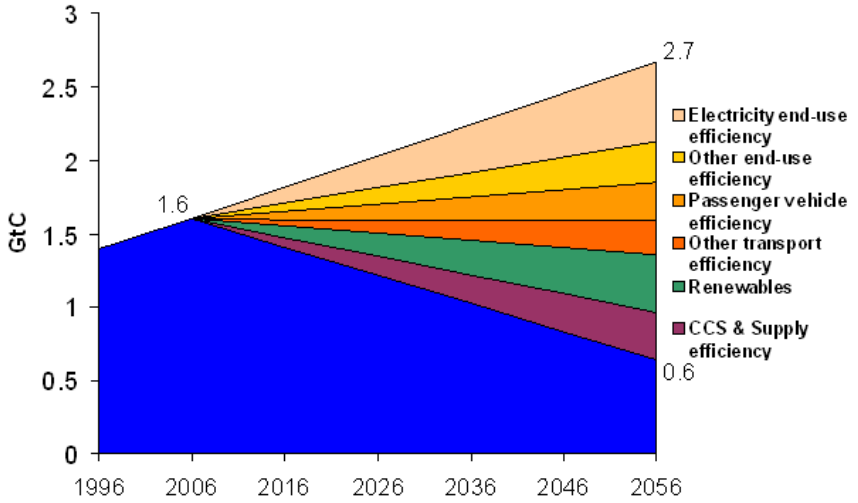
Sources: Representative estimate based on the US EPA Inventory of Greenhouse Gases and Sinks 1990 – 2004 (April 2007), the Energy Information Administration's 2003 Commercial Building Energy Consumption Survey (CBECS), and the Manufacturing Energy Consumption Survey (MECS) 1991 – 2002 as reported by the Energy Information Agency (DOE/EIA-0573(2005)) November 2006.

Energy Efficiency and Climate Strategy

Improved energy efficiency is frequently cited as a key strategy for reducing CO2 emissions.

Examples of Climate Stabilizations Wedges & Energy Efficiency:





Sources: IEA Energy Technology Perspectives 2008, Scientific American "US Climate Stabilization Wedges"

Today's Web Conference

How are energy programs supporting corporate GHG management initiatives:

- Marty Brown, Pfizer
- Patrick Jackson, Corning

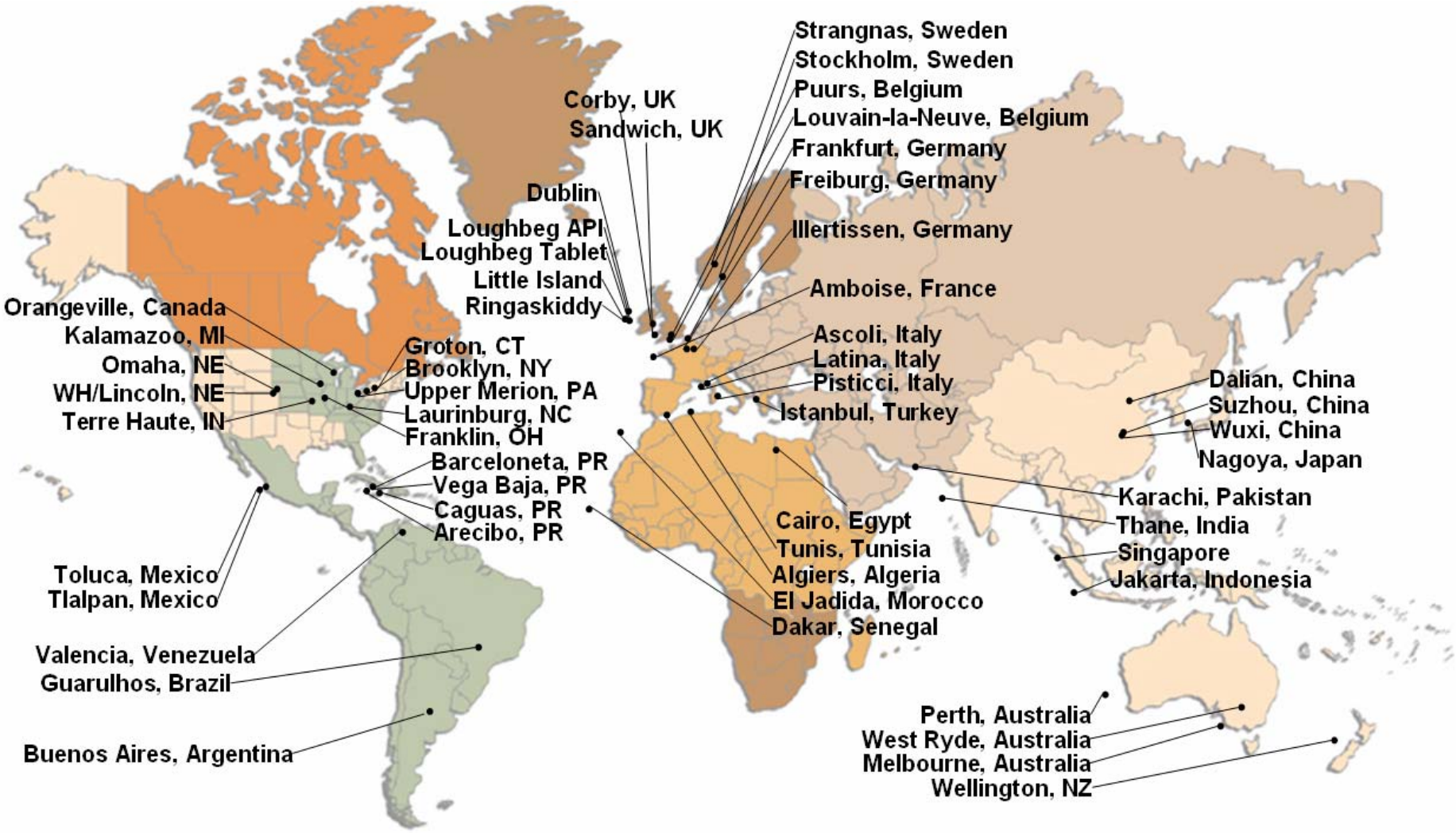
Pfizer Energy and Climate Change Program

Marty Brown
Pfizer Global Engineering
Energy Star Web Conference
October 22, 2008

Who We Are

- World's largest research-based biomedical, pharmaceutical company
- 2007 Revenues: $48.4B
- 2007 R&D Actual Spend: $8.1B
- Worldwide Headquarters: New York, NY
- R&D Headquarters: New London, CT
- Number of Employees: 85,000 in 90 countries

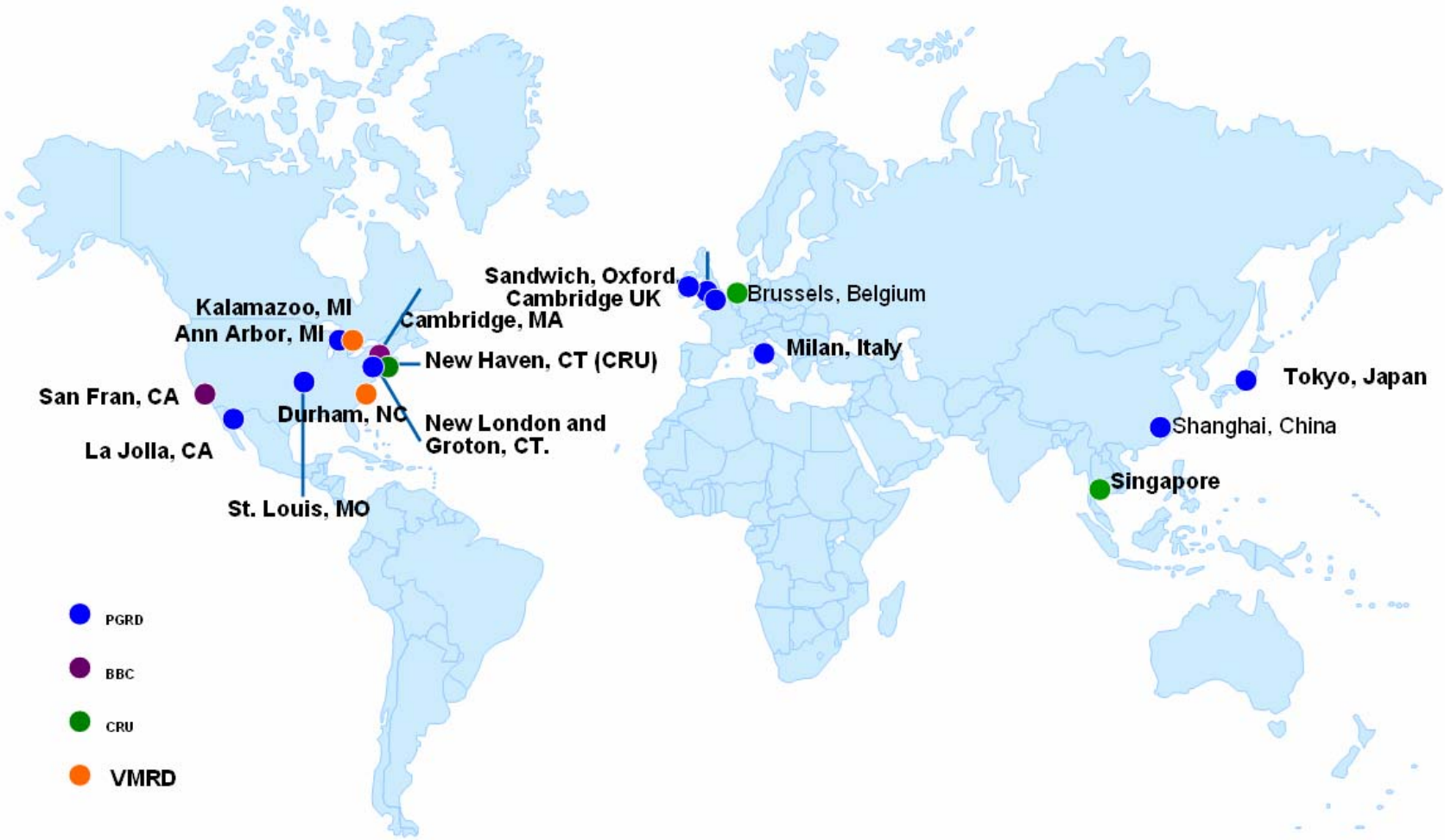
Our Manufacturing Sites



Information based on 1Q08

Working together for a healthier world™

Our R&D Sites



Information based on 1Q08

Working together for a healthier world™

Global Energy and Climate Change Program

Vision

Pfizer will be recognized as an industry leader in the area of energy management

Mission

To procure and use energy at Pfizer in an efficient, cost-effective, and environmentally responsible way

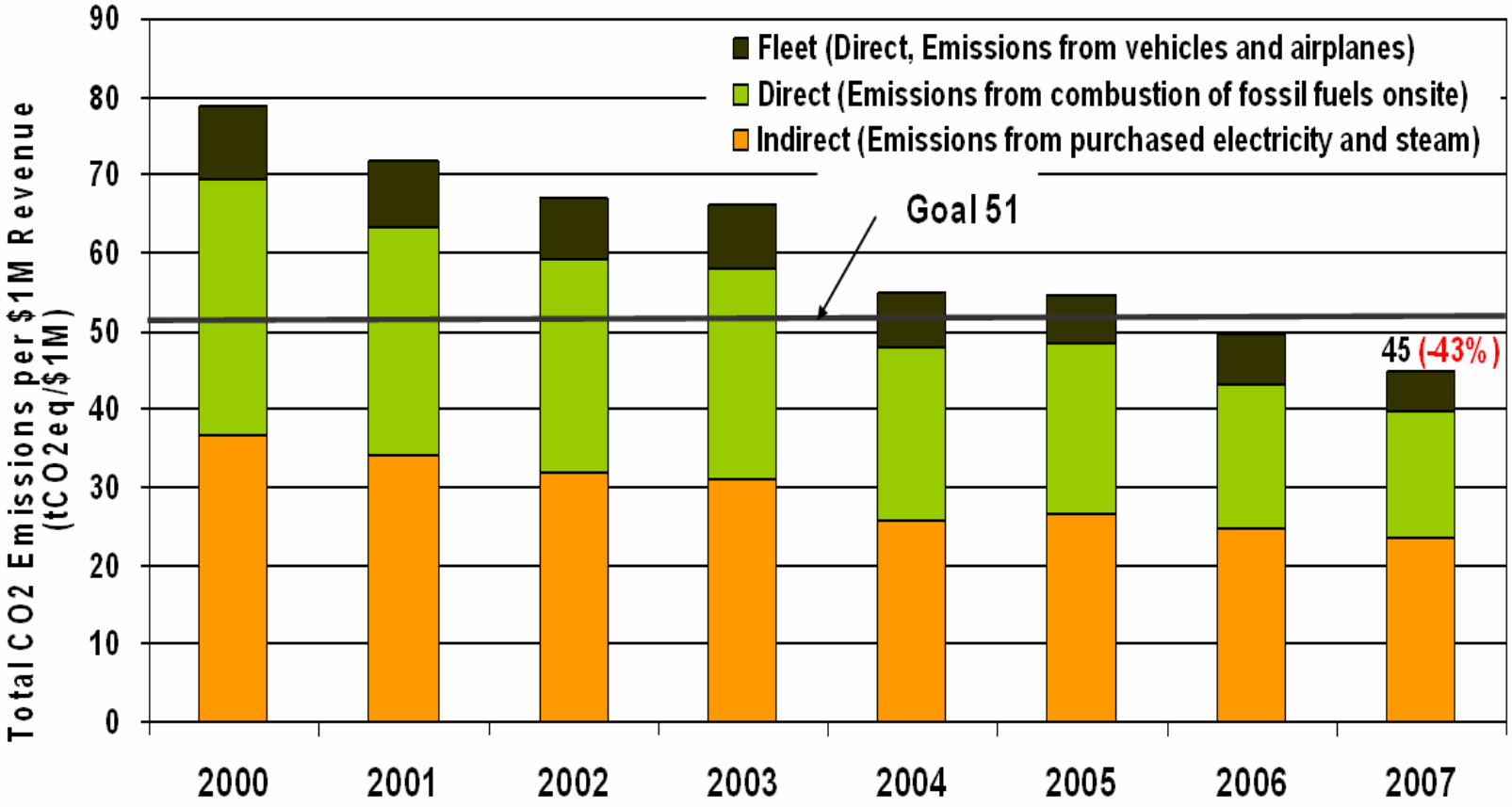
Corporate Commitment – Public Goal (Climate Leaders)

Reduce greenhouse gas emissions by 20% from a 2007 base by 2012

(First generation goal to reduce GHG emissions by 35% relative to sales was achieved in 2007)

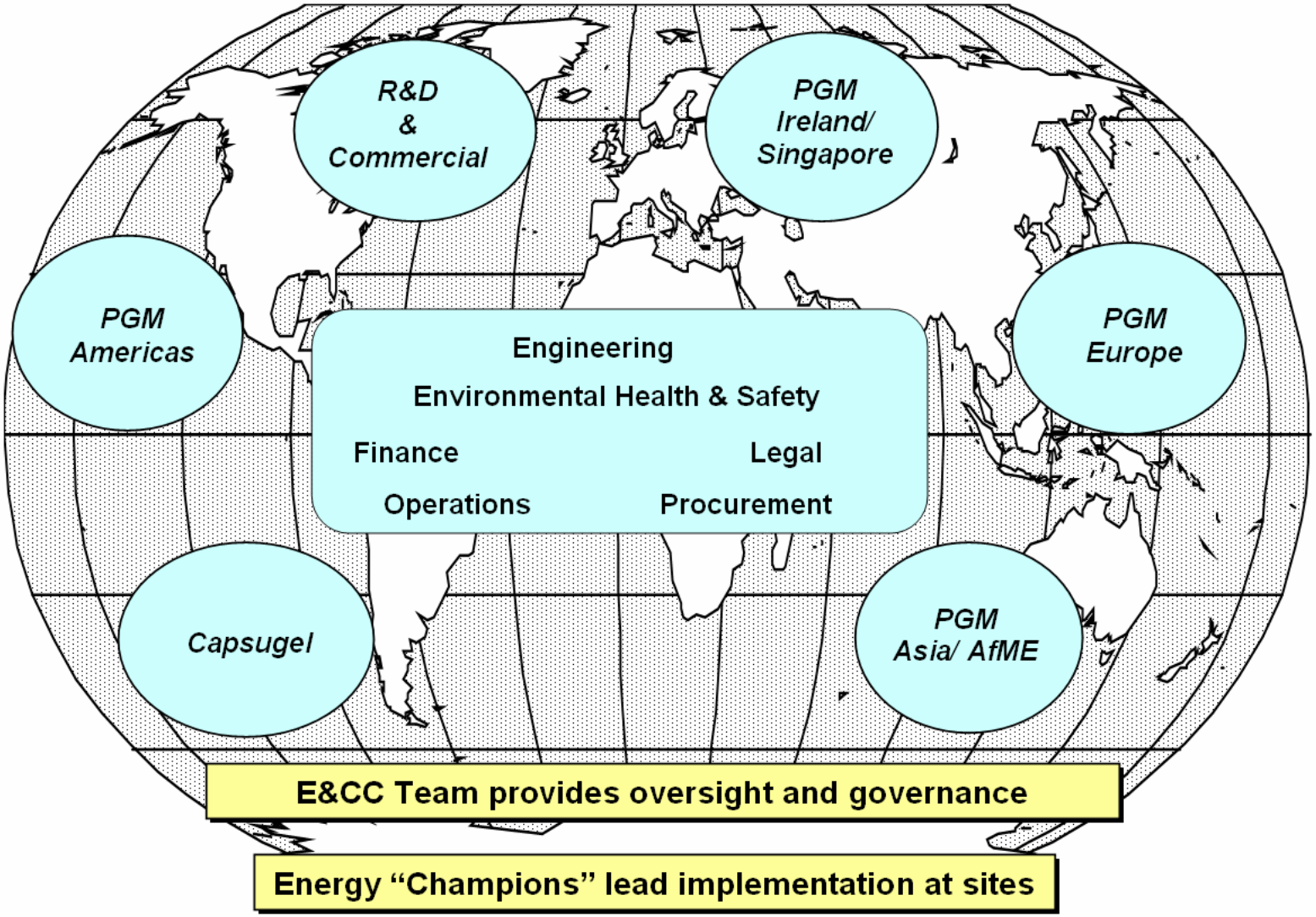
First Generation GHG Reduction Goal

Reduce GHG emissions by 35% per million $ of revenue by 2007 from the baseline year 2000



Working together for a healthier world™

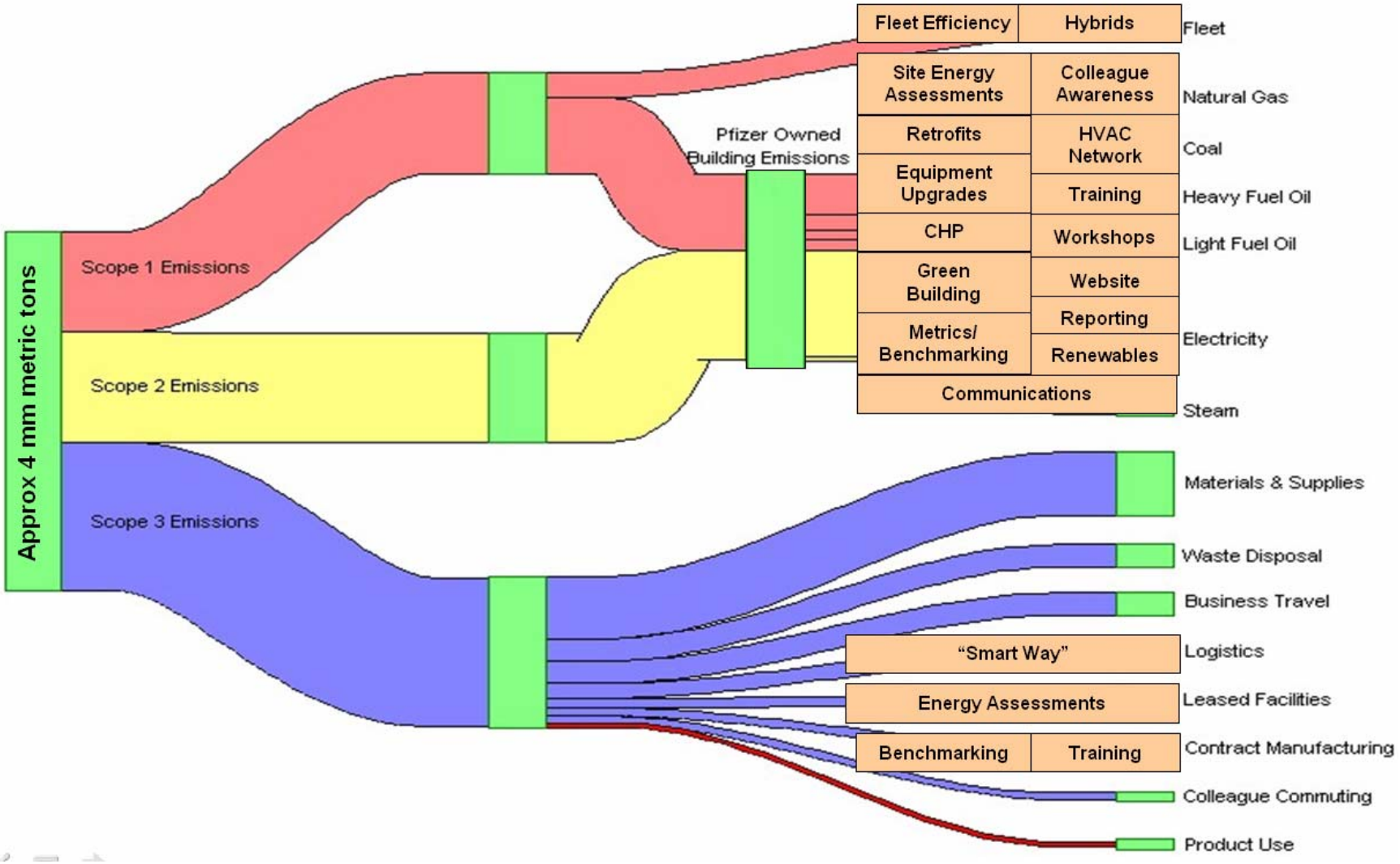
Organization - Global Energy Network



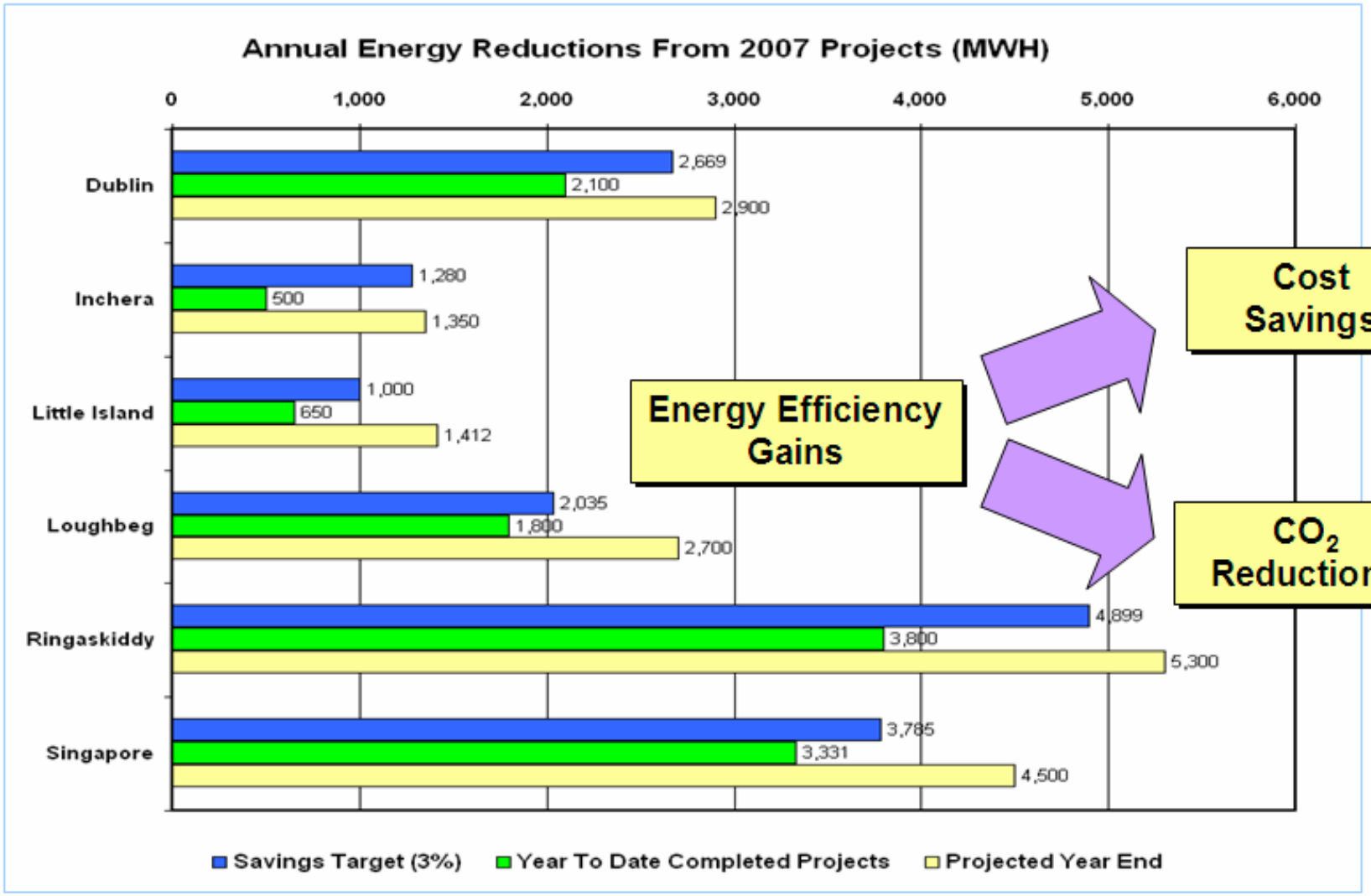
Role Expectation : Site Energy Champion

- Organize and lead monthly multi-discipline Site Energy Team meetings to drive success of the site energy management program
- Understand site energy budgets (cost and volumes) and set energy reduction goals for the site
- Communicate regularly to the site Leadership and site population on energy goals and progress against those goals
- Conduct site energy assessments to identify conservation opportunities on a programmed basis
- Champion efforts to implement energy conservation project at the site
- Utilize the Pfizer Energy Website Project Portal to track progress on all energy projects and initiatives. 'Own' the database for the site, ensuring that information is kept up to date
- Participate in regular (quarterly) telecons with other sites in the region to share energy conservation success stories
- Use the Site Energy Team to raise awareness of conservation at the site
- Participate in development of energy procurement strategy, maintaining familiarity with the key aspects of the site's supply side management

Managing Pfizer's Carbon Footprint



Quarterly Progress Reports (Manufacturing)



Energy & Climate Change Program – Key Elements Summary

- Objectives
  - Corporate objective on GHG reduction – long term
  - Set energy reduction targets by site - annual
- Organization
  - Site Energy Champions
  - Site teams linked into Regional/functional teams
  - Central coordination team (Global Energy Team)
- Communications
  - Annual Global Energy Summit
  - Regular telecons and meetings
  - Reporting results
  - Common (web based) database tracking energy conservation projects
  - Robust communications network to encourage sharing
- Education, Training & other support
  - Energy assessments
  - Workshops and Web conferences
  - Promote training/certification (Certified Energy Manager)

Thank You!

Marty Brown
Pfizer Global Engineering
martin.brown2@pfizer.com
908-901-8817

CORNING

GEM
Global Energy Management

Energy Star

Patrick L. Jackson
Manager Global Energy
October 22, 2008

Corning Incorporated

- Founded in 1851
- Headquartered in Corning, New York
- 25,000 employees
- 2007 Revenues $5.86 Billion
- High energy costs

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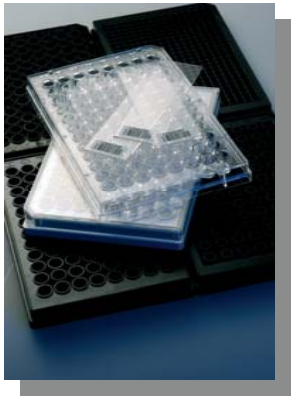
Businesses

Display Technologies

Specialty Materials

Environmental Technologies

Telecommunications



Life Sciences

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Commitment to Energy Productivity

Strategic Concerns About Energy

- Long-term costs
- Supply reliability and quality
- Environmental impacts
- Customer and shareholder inputs

Potential Competitive Advantages

- Breakthrough energy productivity gains
- Reliable and secure energy supplies
- Sustainable business practices

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Information Gathering

Voice of the Customer

+

DOE & EPA

+

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Findings

- Energy policy
- Global leader
- Senior sponsorship
- Active energy teams
- Reliable data
- Baseline data
- Corporate, division, and site goals
- Available capital
- Technical action plan
- Defined roles, resources, and responsibilities
- Long-term energy master plan
- Education and training programs
- Communications plan

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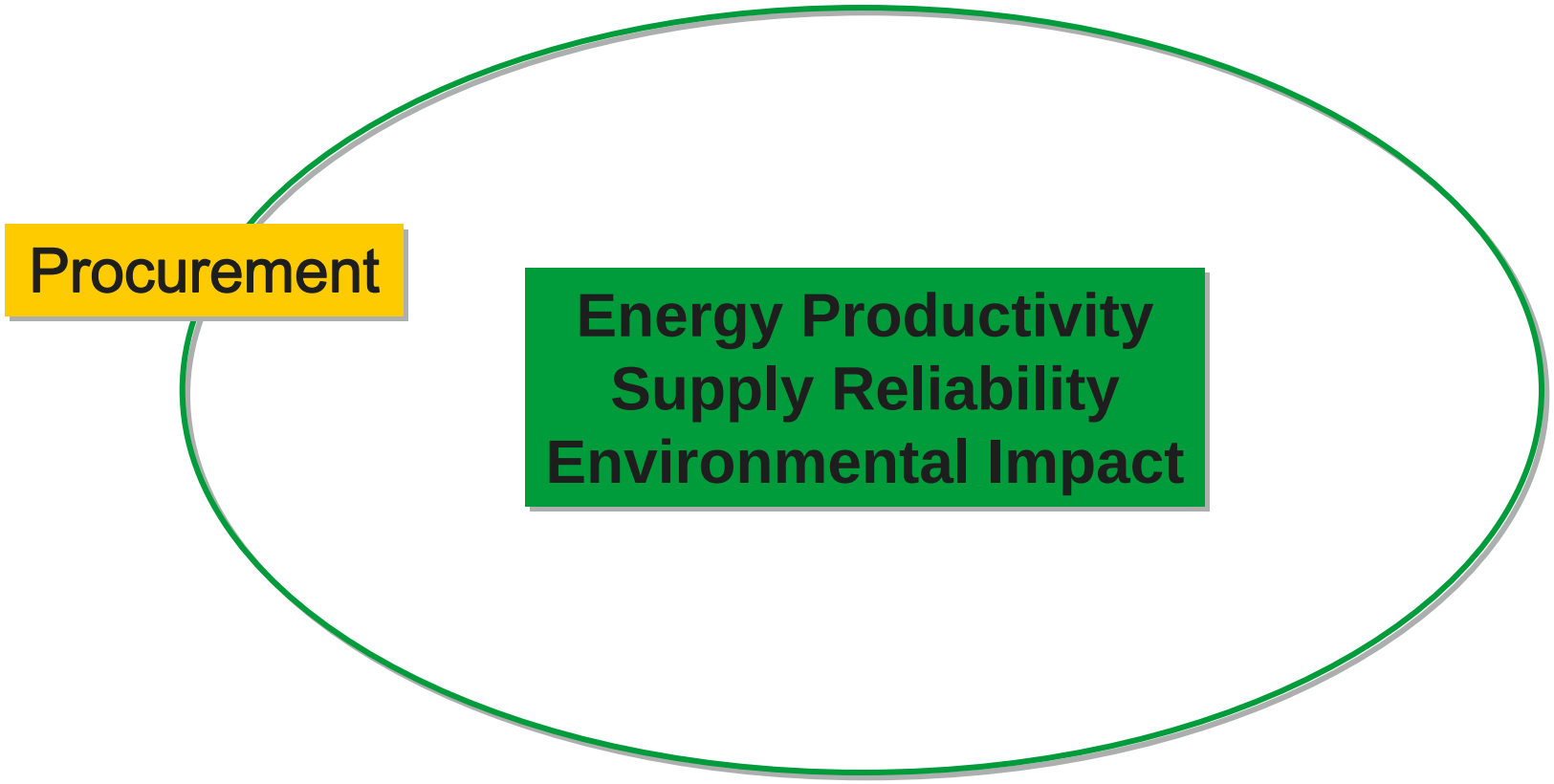
Previous Considerations in Energy Management



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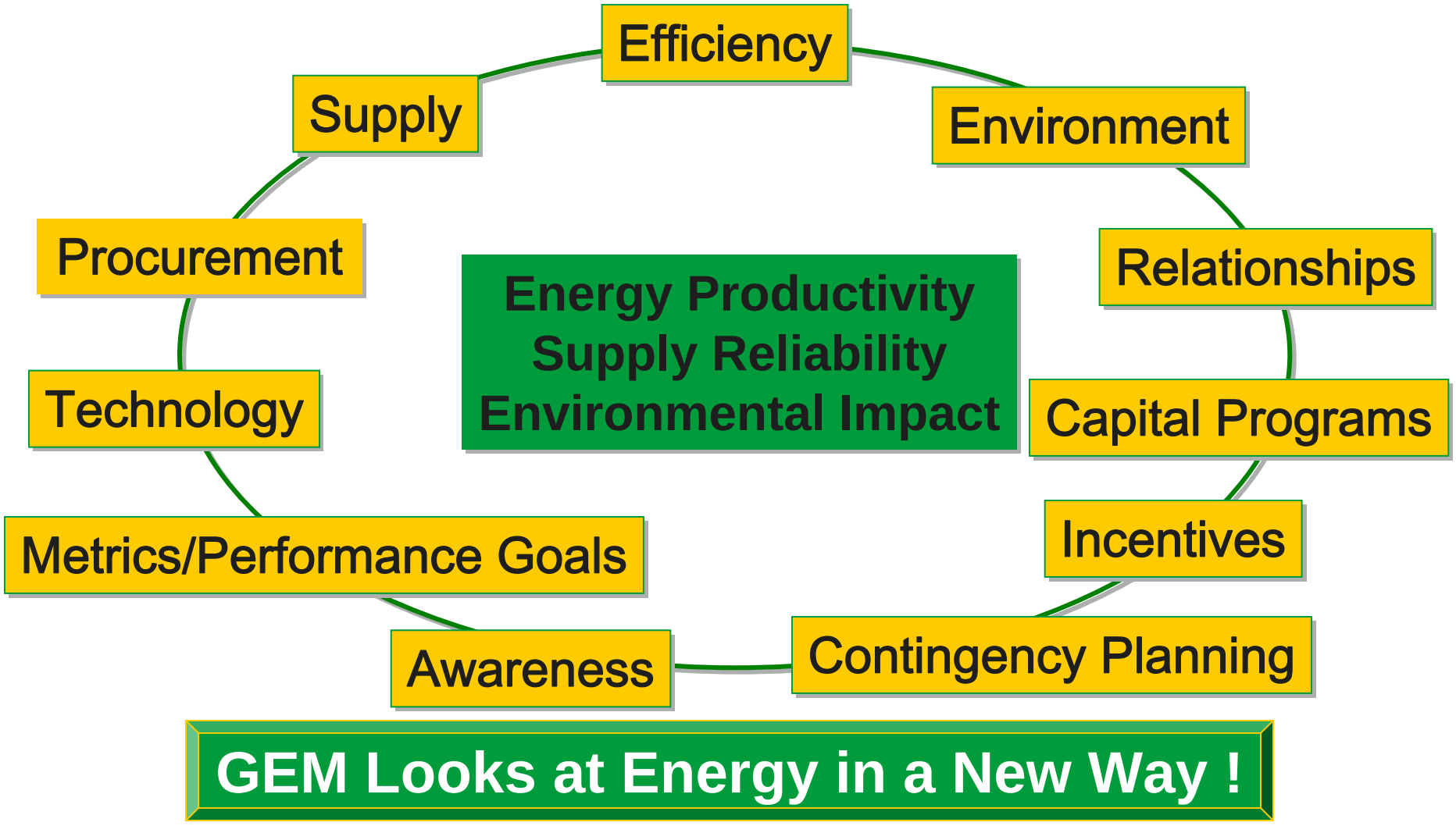
Considerations in Global Energy Management (GEM)



GEM Looks at Energy in a New Way !

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GEM Objectives

- To Strategically Manage Global Energy By:
  - Ensuring a reliable energy supply
  - Reducing consumption of energy using an integrated, multi-functional approach
  - Achieving a positive return on investment
  - Utilizing “greener” energy when possible
  - Maintaining more efficient and productive buildings
  - Improving Energy productivity

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GEM Scope

Commodities

- Natural Gas
- Propane
- Electricity
- Fuel Oil
- Aviation Fuel
- Combustible Gases
  - Oxygen
  - Nitrogen
  - Helium
- Water
- Waste Water

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Corning Incorporated Worldwide Energy Commitment

- Mission Statement:

  Corning Incorporated will become world-class in the way it purchases and uses energy, resulting in lower unit costs, potentially lower greenhouse gas emissions, and a healthier environment.

- Commitment to Energy Management:
  - Cost reduced, optimized returns for energy efficiency investments
  - Minimized environmental impacts, conserved natural resources, and potentially lowered greenhouse gas emissions
  - Corning is committed to maintaining a long-term view of energy

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Energy Management Guidelines

- Continuously improve energy productivity through effective energy management programs that support manufacturing capabilities while providing a healthy work environment.
- Encourage ongoing energy conservation by all employees.
- Implement plans to protect operations from energy supply interruptions.
- Secure adequate and reliable energy supplies at the most advantageous rates.
- Manage energy supplies to potentially lower greenhouse gas content.
- Incorporate energy productivity in new product design and development.
- Consider energy efficiency in the selection of all real estate, equipment, goods, and services.
- Drive further development and investment in innovative energy technologies.
- Engage governmental agencies and utility companies to utilize and develop effective energy productivity incentives.
- Support national and regional energy policy and climate change activities.

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GEM Team Roles and Responsibilities

Corporate Sponsors

- Visible support and oversight

Global Energy Manager

- Overall Global Energy Management policy, process and funding

Global Energy Engagement Manager

- Rollout of GEM process to divisions and plants

Division Energy Manager (DEM)

- Owns operating strategy for divisions

Site Energy Manager (SEM) and Team

- Owns site operating strategy

Corporate Team

- Supports corporate, division and site strategies

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Corning's Framework for Energy Productivity

Adopted from the California Loading Order and the European Union's "Trias Energetica"

1. Maximize energy efficiency

2. Use as much economically viable renewable energy and combined heat and power (Cogeneration) as possible

3. Partner with utilities to maximize the use of existing electric and gas grids

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GEM Support to Divisions and Site Teams

- Capital pool to address energy opportunities
- Access to rebates and incentives
- Technical support
- Energy training
- Best practices
- Web-based toolbox
- Integrated and expanded energy procurement
- Continuous strategic energy planning
- Intervention with regulatory issues

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Critical Self-Assessment July 2008

- Commitment to Continuous Improvement
- Assess Performance and Opportunities
- Set Performance Goals
- Create Plan
- Implement Plan
- Evaluate progress
- Recognize Achievements

Energy Star Assessment Matrix

	12/06	3/07	7/08
Little or no evidence	17	0	0
Some elements	6	14	9
Fully implemented	0	9	14

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Accomplishments

Corning Internal Projects

- State incentives
- Utilized building commissioning
- 15 active NYSERDA grants
- U.S. Dept. of Energy audits

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Accomplishments

Corning Internal Projects

- Consulting agreement with Syracuse University and Center of Excellence in Environmental and Energy Innovations
- Corning cogeneration project
- Benchmarking completed

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Accomplishments

Industry Leadership

- Initiated local branch of U.S. Green Building Council
- Awarded certification to the California Climate Registry
  - Established baseline for 2005, Certified 2006, Pending certification for 2007
- Energy Manager of the year Award, 2007, Association of Energy Engineers (AEE)
- Industrial Engineering Technology Conference (IETC) Award 2008
- Registered LEED projects:
  - Sullivan Park (3)
  - Decker renovation
  - Childcare Facility

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Selected EPA Resources

- Inventorying, goal setting & recognition
- Supply side strategies
- Mobile sources
- Methane recovery
- Energy Efficiency

www.epa.gov/climatechange

Upcoming Web Conferences

Month	Topic
November	Energy Strategy & Project Financing
December	No web conference
January 2009	ENERGY STAR Update
February	Designing Energy Efficient Buildings
March	Datacenter Energy Management
April	Solar Power Strategies

Past Presentations – See “Networking Opportunities” @ energystar.gov

EPA

2009 Web Conferences

- Have a good idea for web conference?
- Have a great energy management story?
- Have an issues your wondering about?
- Then contact: tunnessen.walt@epa.gov with some suggestions!

Thank You!