

Corning's Global Energy Management Program

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*Virginia Sustainable Building Network
Omni Hotel
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Corning Incorporated

- **Founded in 1851**
- **Headquartered in Corning, New York**
- **Approximately 25,000 employees worldwide**
- **Approximately 10,000 US Employees**
- **2005 Revenues of \$4.6 Billion**
- **Ranks 456 in Fortune 500**
- **Manufacturing operations in 13 states**
- **Global Energy costs ~\$250Million**



Market Segments



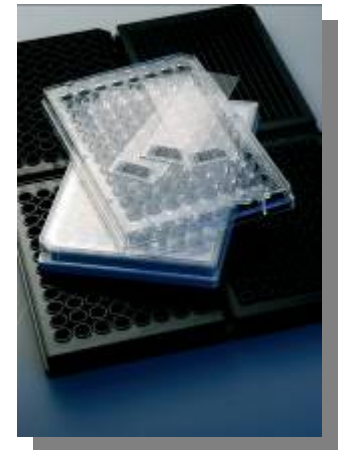
Display Technologies



Environmental Technologies



Telecommunications



Life Sciences

Large electricity and gas consumer

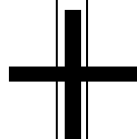
Corning Global Energy Management

Commitment to Energy Productivity

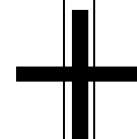
- Strategic concerns about energy
 - *Long-term costs*
 - *Supply reliability and quality*
 - *Environmental impacts*
 - *Customer and shareholder inputs*
- Potential competitive advantages
 - *Breakthrough energy productivity gains*
 - *Reliable and secure energy supplies*
 - *Sustainable business practices*
- Global Energy Management (GEM) Program approved by Senior Management

Information Gathering

Voice of
the
Customer



US Dept.
of
Energy



Learnings

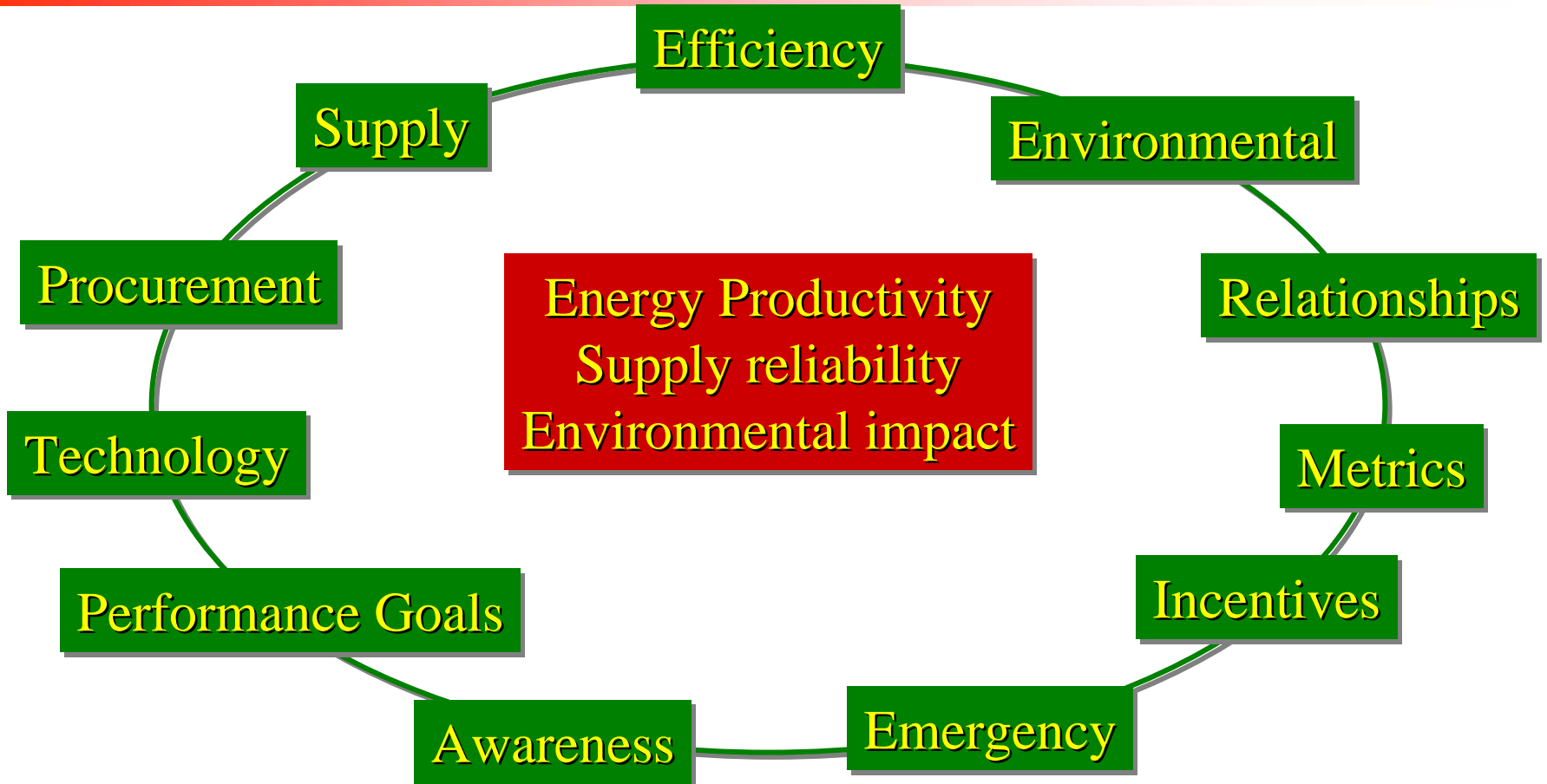
- Energy policy
- Global leader
- Senior sponsorship
- Active energy team
- Reliable data
- Agree 2005 baselines
- Corporate, divisional, and site goals
- Capital available
- Technical action plan
- Defined roles, resources, and people
- Long-term energy master plans
- Education and training program
- Communication plan

Factors Influencing GEM Goals

Procurement

**Energy Productivity
Supply reliability
Environmental impact**

Factors Influencing GEM Goals



GEM looks at energy in a new way !

GEM Objective

- To strategically manage global energy by:
 - *Ensuring energy supply **reliability***
 - ***Reducing consumption** of energy via an integrated, multi-function approach*
 - *Achieving positive **ROI***
 - *Using “**greener**” energy where possible*
 - *Maintaining more **efficient** and **productive buildings***
 - *Improving energy **productivity** by **20-30%** within three to five years*

GEM Scope

Commodities

- Natural gas
- Propane
- Electricity
- Fuel oil
- Aviation Fuel
- Combustion gases
 - *Oxygen*
 - *Nitrogen*
 - *Helium*
- Water
- Waste water

Rollout Locations

- New York State facilities
- CET facilities worldwide
 - *Including Blacksburg Plant*
- Additional plants
 - *Danville Plant*
- Worldwide ~July 2006

Focal Points

- Productivity
- Supply reliability
- Environmental attributes

Corning Incorporated Energy Policy

- **Applicability**
- **Mission Statement**
- **Commitment to Energy Management**
- **Policy Guidelines**
- **Policy Approval**

GEM Organization

Accountabilities

Global Energy Manager (GEM)

Overall global energy management process and funding

Division Energy Manager (DEM)

Owns operating strategy for division

Site Energy Manager (SEM) & Team

Owns site operating strategy

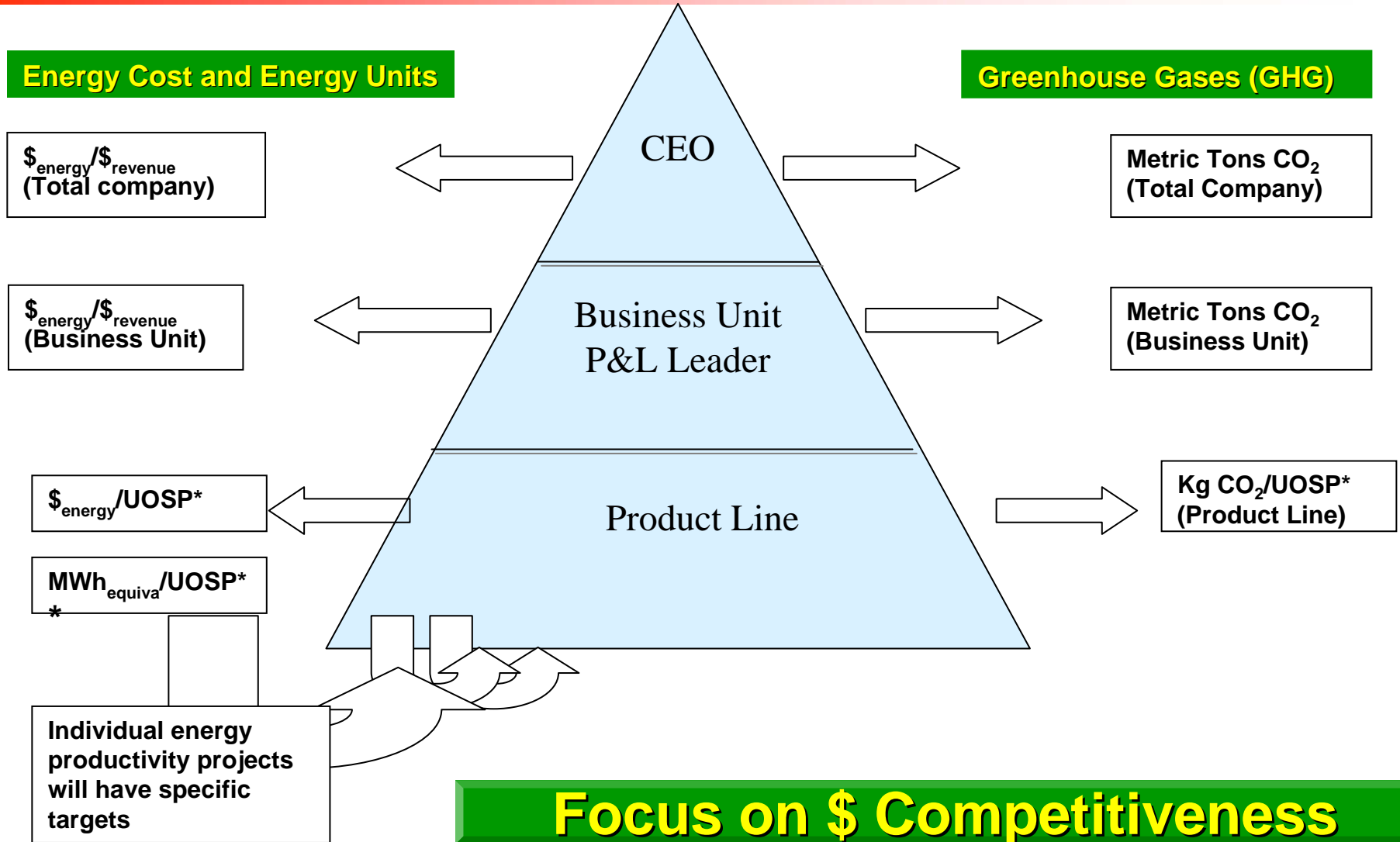
Corporate Team

Corning's Framework for Energy Productivity

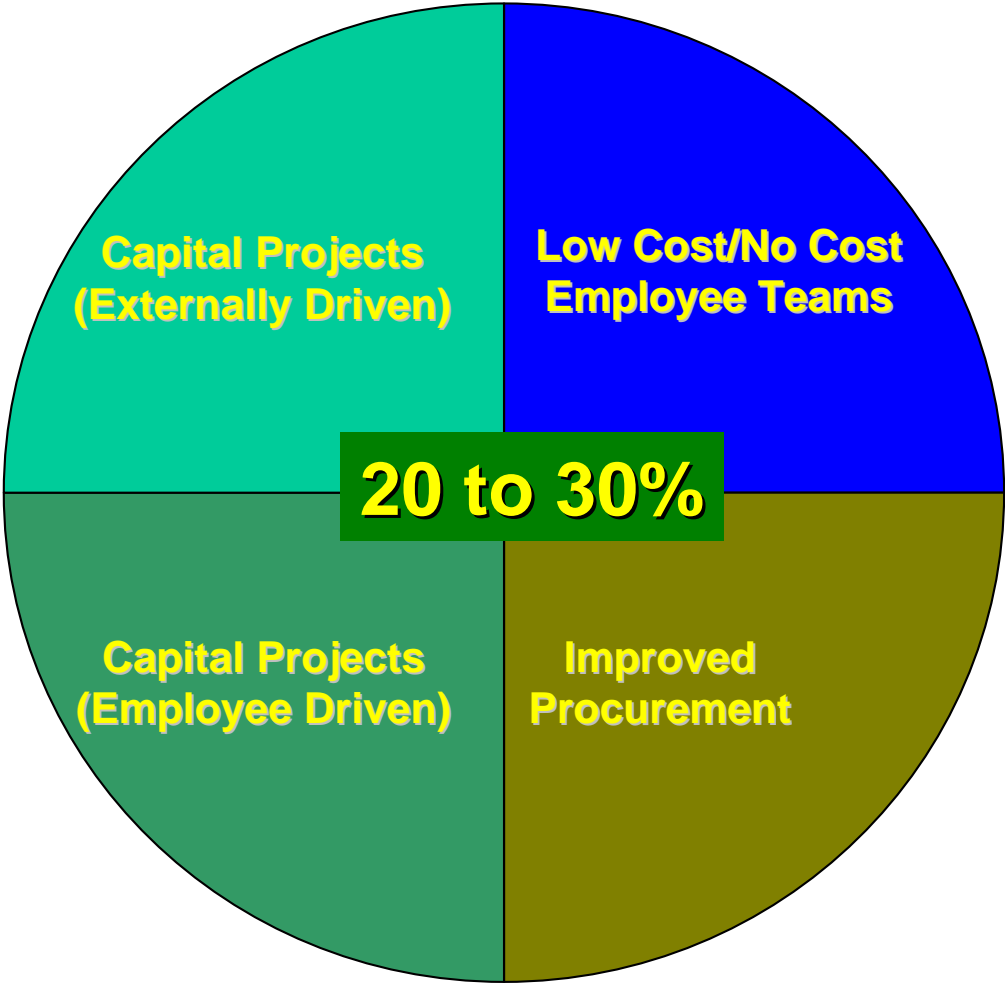
California Loading Order / "Trias Energetica"

- Maximize energy efficiency
- Use as much economically viable renewable energy and combined heat and power (cogeneration)
- Maximize productive use of existing electric and gas grids

Establishing the Corporate Baseline



Expected Productivity Gains



GEM Support to Division 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
- Strategic energy planning
- Intervention with regulatory issues

Early Projects

- *NYSERDA grants*
- *Decker renovation -- LEED*
- *Landfill gas feasibility project Blacksburg*
- *U.S. Dept. of Energy audits*
- *Electric Reliability for Erwin Plant*
- *Corning Campus Headquarters heating system*
- *Building audits and consumption*
- *Benchmarking*
- *Risk Assessment*
- *California Climate Registry*

On the horizon

- Corning energy standards
- Metering & sub metering
- Leadership in energy & environmental design (LEED) commitment
- Commissioning of equipment
- Challenge over-sizing
- Efficient procurement

In Summary....

Our position is straightforward

- We will operate our worldwide facilities to increase energy productivity by 20% to 30% within five years relative to 2005 levels
- We will minimize creation of greenhouse gases through effective energy management
- We will continuously explore opportunities to raise the bar
- Systematic management of energy use is core to competitiveness

**Systematic management of energy use
is core to competitiveness**

Thank You