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No BTU's About It! Energy Efficiency is Everyone's Business at DuPont

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DuPont Today

- A 203 year-old global science company solving problems in ways that make people's lives better, safer, and easier
- 135 manufacturing plants, 80 R&D facilities in 70 countries
- 60,000 employees
- 2004 business results
 - \$27.3 Billion in Net Sales
 - \$1.8 Billion in Net Income
- Major business segments
 - Electronics & Communications Technologies
 - Coatings and Color Technologies
 - Performance Materials
 - Agriculture & Nutrition
 - Safety & Protection



DuPont Tyvek® Housewrap

Familiar Products...



DuPont Suva® Refrigerants



DuPont Kevlar® Aramid Fiber



DuPont High Performance
Air Filters



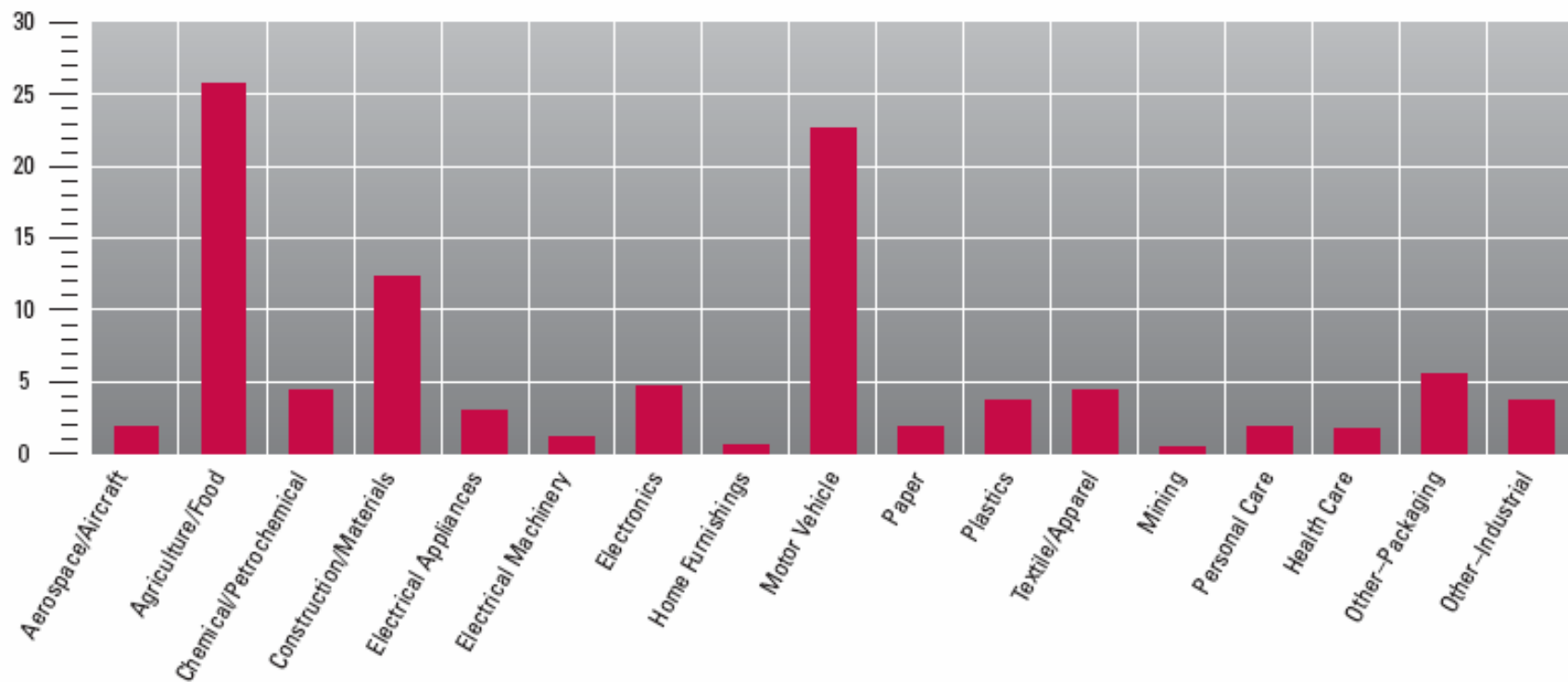
DuPont Corian® Surface Material



DuPont ChromaLusion®
Automotive Finishes

...Across Many Markets

2004 Sales by Major Industry (% of total company)



DuPont's Goal is "Sustainable Growth"

- We define "Sustainable Growth" as
 - Increasing shareholder and societal value...
 - While decreasing the footprint of our operations...
 - Along the value chains in which we operate
- We consider Sustainable Growth a **core value** like safety
- Core values drive behavior and actions to meet business objectives **and** core value goals
- Because we view **energy** use as part of our footprint, we've set goals to reduce it

DuPont's Public Commitment on Energy

- We have committed to achieve the following by 2010
 - Hold total energy use **flat** versus a 1990 baseline
 - **Reduce** greenhouse gas emissions by 65% versus 1990
 - **Supply** 10% of total energy needs from renewable resources at a cost competitive with best available fossil derived alternatives
- These goals changed our approach to energy efficiency
- Efficient use of energy is now a **strategic** objective, not a tactic to cut costs in response to high prices

“Flat” is a Tough “Mountain” to Climb

- Our most challenging goal is to keep energy use flat
- If you make **more** pounds, you’ve got to use **less** energy/lb
- Improving the energy efficiency of existing plants is tough
 - Energy use is dispersed among hundreds of discrete devices
 - Inefficiencies are usually invisible
 - Data required to pinpoint losses is frequently unavailable
 - On-site expertise to identify and make improvements is limited
 - Energy efficiency is not a product quality variable

Motivating Plants to Use Less Energy

- Our plants must learn how to improve something that our customers generally don't care about: **energy efficiency**
- Rising energy prices and our focus on Sustainable Growth are providing the necessary motivation to work on it
- And we've taken a **strategic approach** to help them
 - Establish a "Center of Competency" to develop tools and share knowledge and best practices
 - Use Six Sigma to standardize improvement methodology
 - Appoint champions to lead assessments and implement "projects"
 - Engage Plant Managers to drive accountability for results

The Energy Center of Competency

- Charter:
 - Build and maintain energy technology “competence”
 - And accelerate the application of expertise to improve competitiveness
- A collaborative effort between:
 - Corporate operations leadership
 - Unit operations leadership
 - Site technologists, operators, and technicians
 - Staff energy engineering specialists
 - In short, **anyone** involved in any aspect along the **energy value chain!**

The Energy Center of Competency...

- Develops **Best Practices** that define a standard of excellence for energy efficient operations
- Helps plants assess their equipment and systems to **identify defects** that limit efficiency
- **Trains** operations personnel to develop competency in efficient energy use
- Provides **tools** and **resources** to help plants eliminate energy defects
- **Leverages** knowledge and successes to accelerate improvement

Tools to Help Sites Identify Defects

- DuPont is committed to the Six Sigma methodology
- But Six Sigma can only help us reduce costs if site personnel can actually identify the defects in their energy systems
- Our Energy Center of Competency has developed several tools to help them find defects
 - Energy Efficiency Best Practices
 - Website documents over 200 common energy system defects
 - Energy Efficiency Analyzer
 - Excel spreadsheet quantifies the \$ value of common defects
 - Qualitative Energy Assessment Tool
 - Web-based survey to evaluate energy attitudes and behaviors

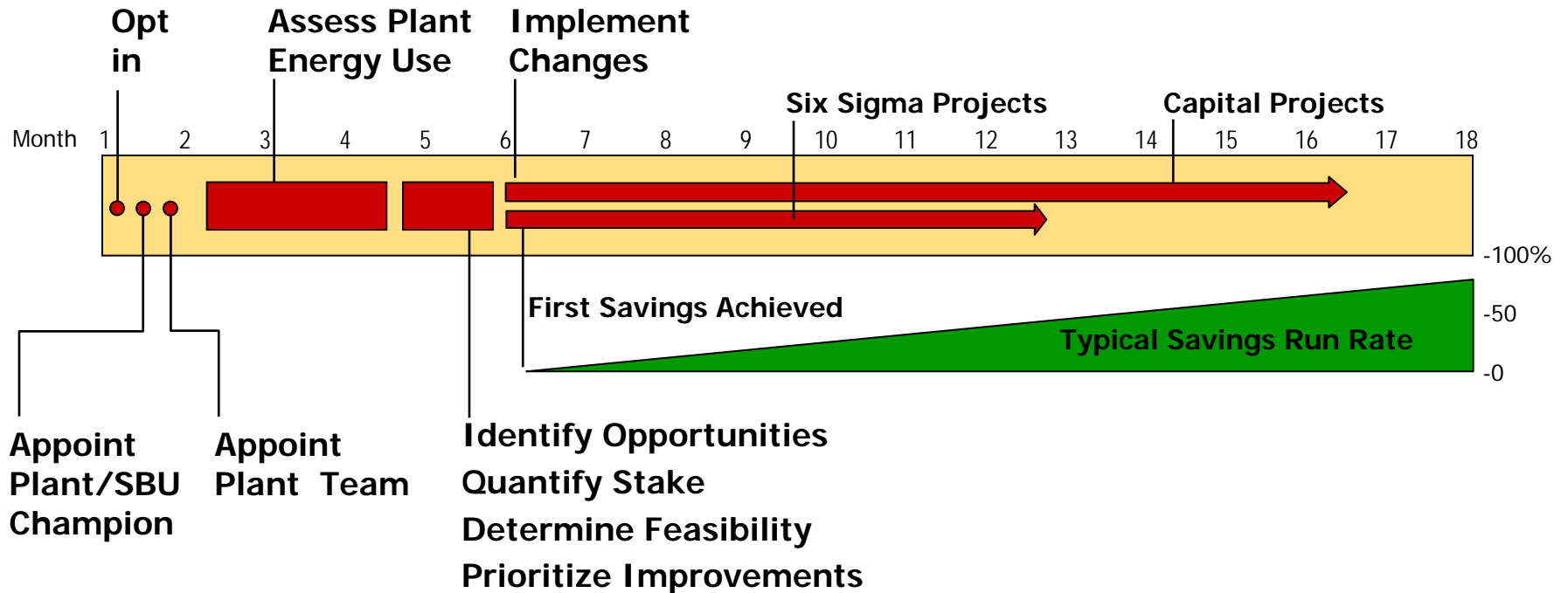
Educating Personnel in Energy Basics

- Plant personnel must understand the “basics” of energy efficiency to recognize defects and use our tools
- We have developed several methods to educate our users
 - Virtual Workshops (“training without the travel”)
 - Comprehensive intranet website
 - 600-person e-mail distribution list
 - “Templates” for common Six Sigma projects
 - Bi-annual internal energy conferences

Improving Plant Energy Efficiency

- Ambitious goals require ambitious commitment!
- Site Energy Champions are appointed to:
 - Coordinate local energy efficiency programs
 - Accelerate progress
 - Bring discipline to the improvement process
 - Ensure networking and leveraging of successful projects to corporation

A Typical Plant Energy Efficiency Program



The 2005 Energy Breakout Program

- Achieving “breakout” performance means:
 - Improving core value performance
 - Placing the customer at the center of everything we do
 - Executing faster and better than our competitors
 - Focusing intensely on what matters now (e.g., exceeding PO)
- Energy “Breakout:”
 - Initial goal was to **reduce** US Region energy costs by \$10MM ('05 vs. '04 actual costs)
 - **Driven** by the Plant Managers and their networks
 - Line management **accountable** to ensure results are achieved

Energy Breakout Success

- Identification process:
 - ~300 projects
 - 40 sites
 - Goal raised to \$19MM
- Status:
 - \$14MM YTD savings from 146 projects
 - 4 sites have exceeded their targets
 - New opportunities continue to be identified
 - Projects totaling over \$30MM/yr in savings are now in database
 - Overall, we are on target to meet the \$19MM goal

So How Are We Doing?

- Greenhouse gas emissions are **down 72%** from 1990 levels
- Total energy use is **down 9%** while production is up 30%
- Breakout projects have reduced costs over **\$14MM** in 2005
- Renewables now supply about **5%** of our total energy needs
- None of this would have been possible without
 - A **focus** on Sustainable Growth
 - **Goals** to reduce our footprint
 - Six Sigma to identify and eliminate energy efficiency defects
 - The commitment of **everyone** responsible for energy procurement, conversion, distribution, and utilization...
- Because energy efficiency **is everyone's business!**



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