

# Sustainable Growth and Energy Efficiency in DuPont



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**Leader, Energy Center of Competency**



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# DuPont Today

- A global science company solving problems in ways that makes people's lives better, safer and easier
- 175 plants and 80 R&D facilities in 70 countries
  - Four in VA: Front Royal, Hopewell and Richmond (2)
- A significant user of energy
  - 145 Trillion Btu
  - \$1 Billion annual spend



DuPont Tyvek® Housewrap made at our Spruance Plant in Richmond



# DuPont's Goal is "Sustainable Growth"

- We define "Sustainable Growth" as
  - Increasing shareholder and societal value...
  - While decreasing the footprint<sup>†</sup> of our operations...
  - Along the value chains in which we operate
- We view energy use as part of our footprint...
- So we've set goals to reduce it

<sup>†</sup>Footprint = injuries, illnesses, incidents, waste, emissions, and depletable forms of raw materials and energy



# DuPont's Public Commitment on Energy

- In 1999, we committed to the following energy goals
  - Hold total energy use flat versus a 1990 baseline
  - Reduce GHG emissions by 65% versus 1990 ✓ Completed in 2004
  - Supply 10% of total energy from renewable resources
- All are to be accomplished by year-end 2010
- We have since committed to reduce GHG emissions an additional 15% versus a 2004 baseline by 2015
- Measurable, public goals put teeth into our energy efficiency commitment



# Our Challenge: “Grow While Shrinking”

- To achieve Sustainable Growth, we must **grow** shareholder value **while shrinking** energy use
- This is a difficult challenge
  - Energy efficiency is not a product quality variable
  - Energy use is broadly dispersed
  - Inefficiencies are frequently invisible
  - Expertise to make improvements is limited
- The remaining slides show our approach

# How We've Responded to the Challenge

- Senior Leadership commitment and oversight
- Dedicated leadership for site efficiency programs
- Provision of capital for improvement
- Local plant improvement objectives
- Tracking of site performance versus targets
- Networking among peers
- Leveraging expertise to help plants help themselves



# Senior Leadership Commitment/Oversight

- **Chairman and CEO: “Enthusiasm for sustainability inside DuPont has grown because it is now directly tied to the company’s growth.”**
- **Senior VP of Operations: Commissioned 3-year “Bold Energy Plan” to accelerate energy efficiency**
- **Operations VP: Oversees Plan progress; reviews and approves all energy capital projects**



# Dedicated Site Leadership

- Improving energy efficiency is everyone's job...
- But without dedicated leadership, it is no one's job
- Over 100 plants now have a Site Energy Champion
- The Champions lead site energy efficiency programs
- The programs strive to meet annual savings targets based on known improvement opportunities



# Availability of Capital for Improvement

- **Setting public goals will not drive improvement unless you “put your money where your mouth is”**
- **If employees see that you won’t invest capital in good energy projects, they’ll stop looking for improvements**
- **We created an Energy Capital Fund in 2007 to fix this**
- **We’ve invested \$50 Million in energy projects that will**
  - **Reduce annual energy costs by \$50 Million**
  - **Reduce CO<sub>2</sub> emissions and energy use by 5%**
  - **Deliver \$200MM in NPV and achieve a 75% IRR**



# Local Objectives and Targets

- **Our plants tend to be fairly autonomous**
- **A Site Manager is responsible for all aspects of operations and sets priorities for the workforce**
- **His/her performance is judged by annual metrics**
  - **Safety: “Did you meet the goal of 0 injuries?”**
  - **Environment: “Did you meet the goal of 0 incidents?”**
  - **Fixed cost: “Did you meet your budget?”**
- **We’re putting energy on the Manager’s report card**
  - **“Did you meet your annual energy savings target?”**



# Tracking Performance vs. Target

- **Having a target is useless unless you “keep score”**
- **We have an online database that tracks performance**
- **Progress is measured by the savings achieved from individual improvement projects at each plant**
- **The database currently tracks over 550 projects**
- **If plants hit their targets, we’ll reduce energy use 5% and avoid \$45 Million in energy costs this year**
- **Our objective is to reduce energy use 15% over the next 3 years and avoid \$150 Million in energy costs**



# Networking Among Peers

- We have over 100 plants with annual energy targets
- Although each plant is unique, they use similar technology and have similar efficiency objectives
- We want our Energy Champions to talk to each other so we rapidly replicate successful projects
- We conduct monthly Champions conference calls and bi-annual corporate energy conferences
- The Champions now see themselves as part of something bigger than their plant

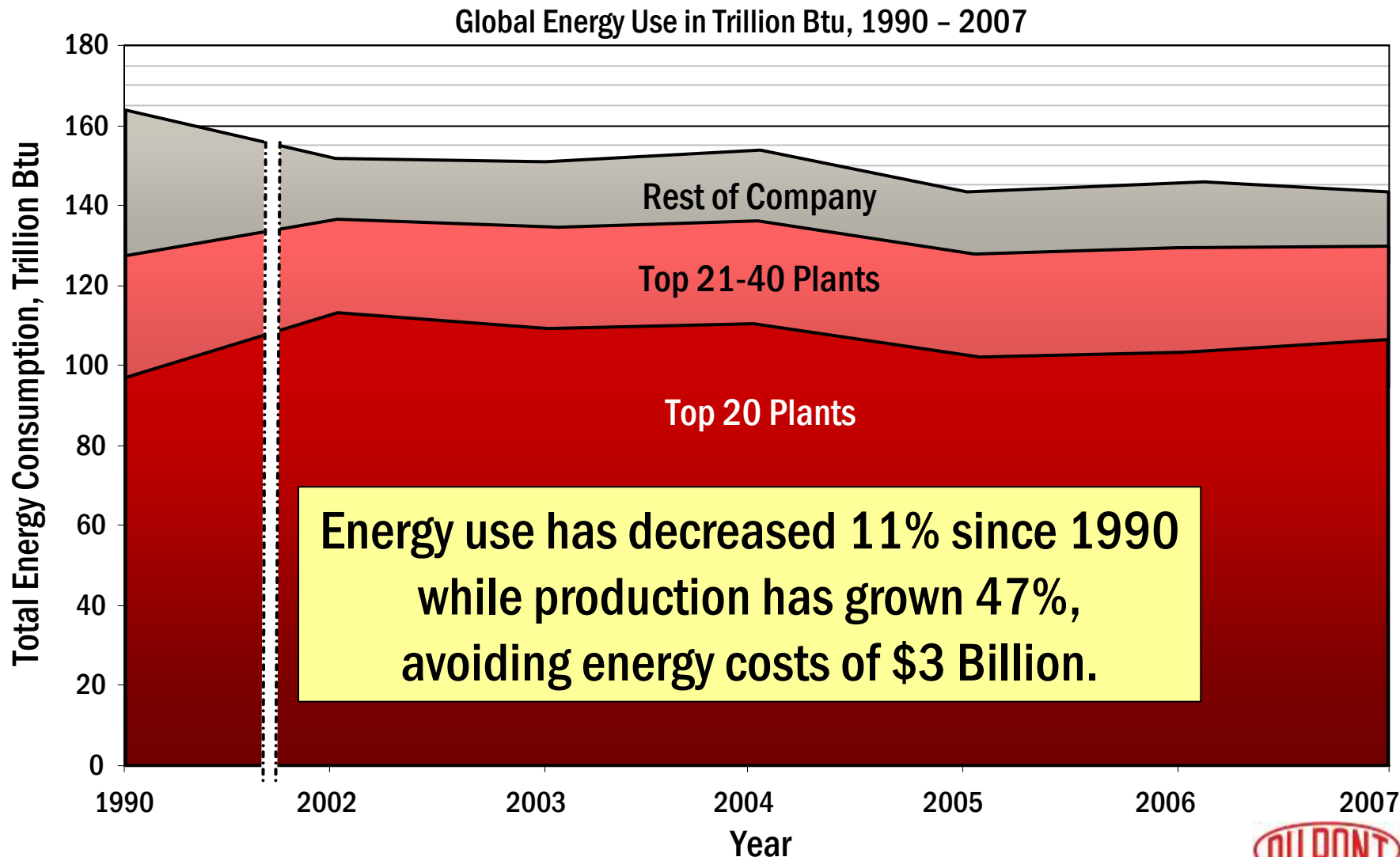


# Leveraging of Technical Expertise

- DuPont has world-class energy experts
- The problem: there aren't enough to go around
- We've recognized we must "leverage" our expertise so that the plants learn how to help themselves
- We're using technology to accomplish this objective
  - Comprehensive website disseminates best practices
  - Downloadable energy engineering assessment tools
  - "Virtual workshops" for energy training without travel

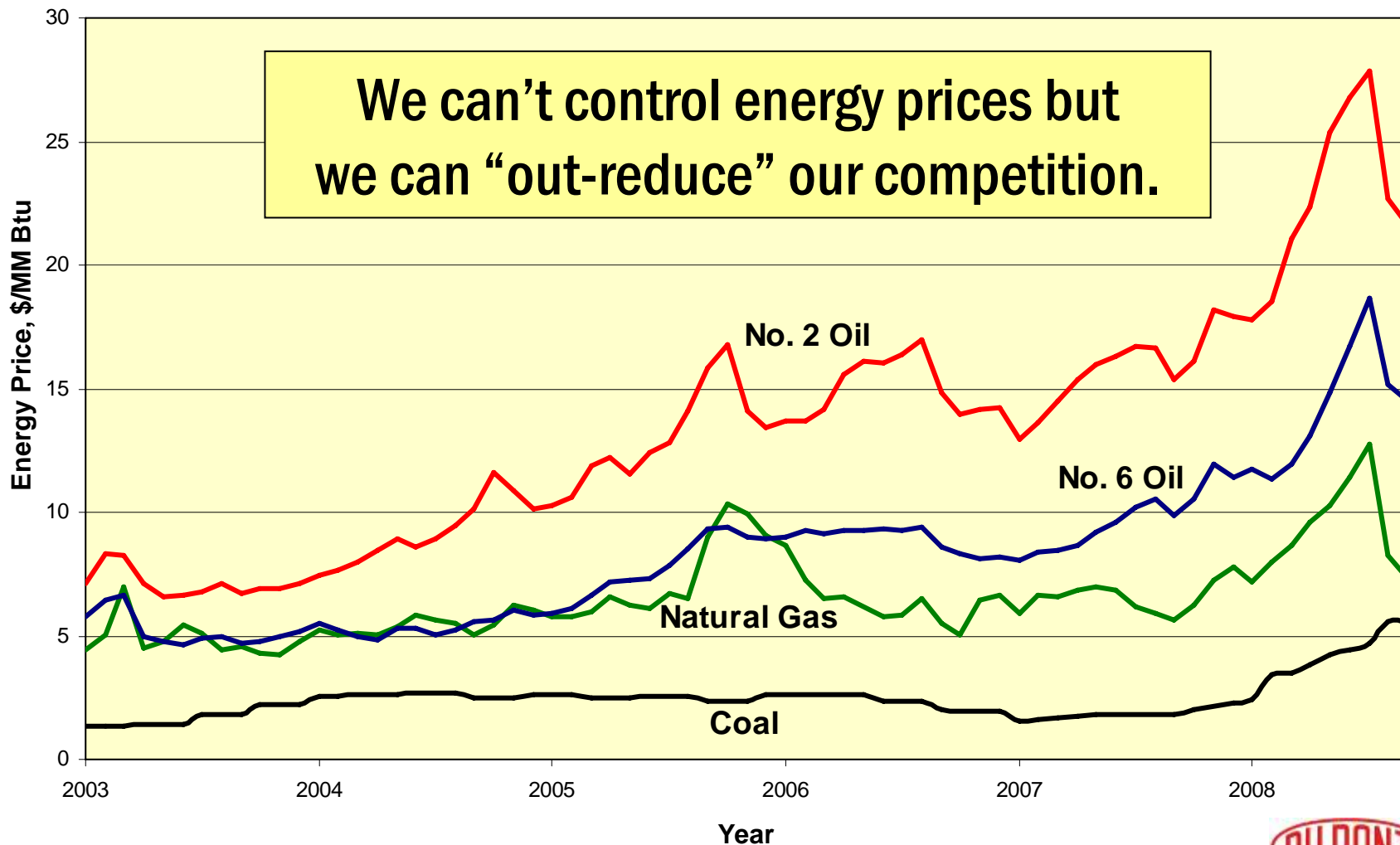


# Our Energy Efficiency Work Is Paying Off



# And the Payoff Goes Up When Prices Go Up

US Raw Energy Prices, \$/MM Btu, 2003 - Present



Source: US Energy Information Administration (EIA)



# Recognition for Success

- **Our efforts have garnered external recognition**
  - **14 awards from the American Chemistry Council**
  - **Ranked No. 1 in US by Ceres on climate change**
  - **Named “Top Green Company” by Business Week**
- **This is all very gratifying, but...**
- **“We don’t see recognition as a victory. We see it as confirmation that we’re moving in the right direction and as encouragement to continue.”**
  - **Chad Holliday, DuPont CEO**



## Some Questions for You to Ponder

- **What is your organization's "top down" commitment to energy efficiency and sustainability?**
- **What energy and sustainability goals have you set? Are they public? Do you track and publish?**
- **Are you putting your money where your mouth is?**
- **How are you motivating your organization to drive continuous improvement in energy efficiency?**
- **Our conclusion: Improving energy efficiency is good for our shareholders AND good for the planet**





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