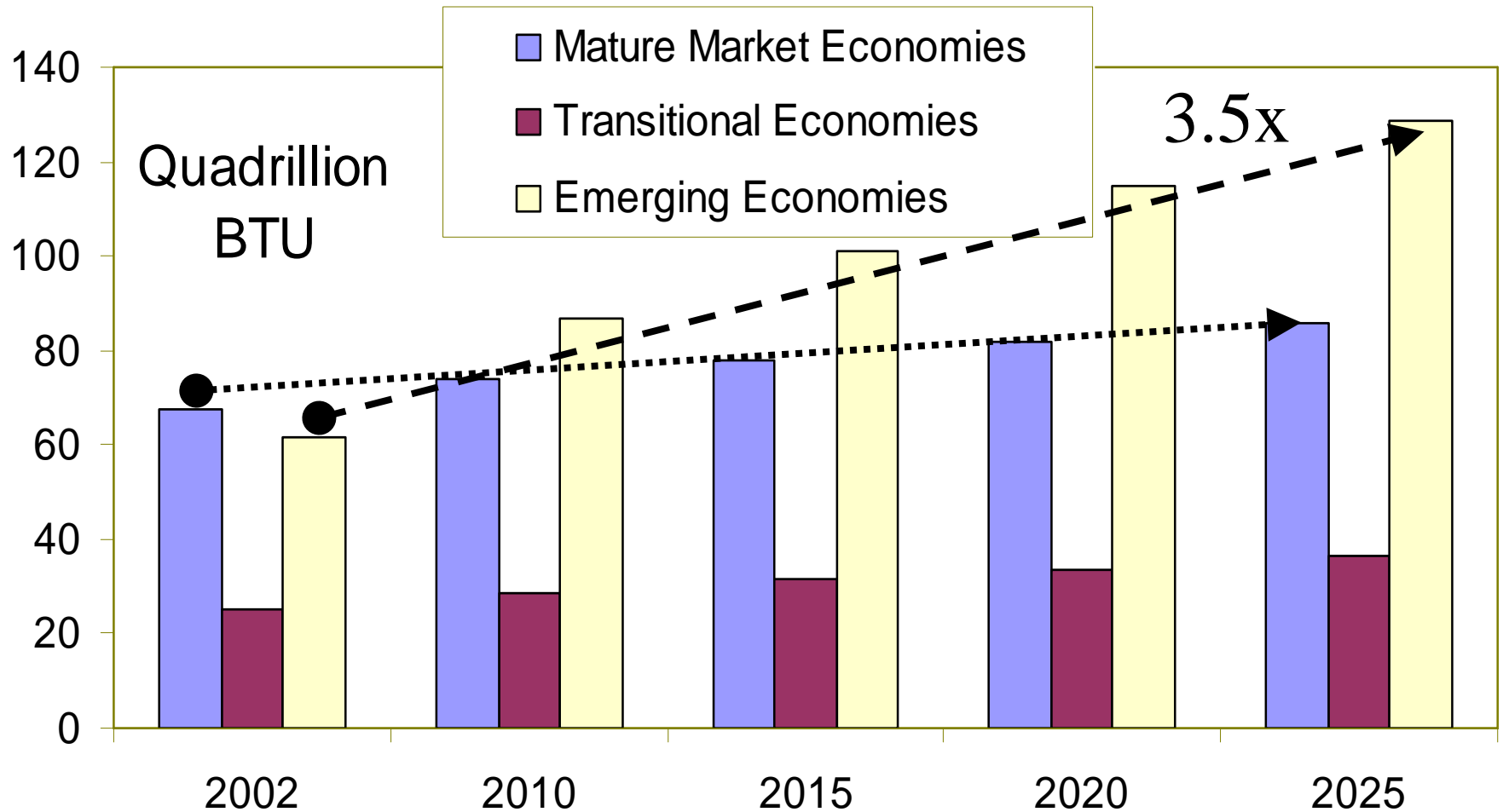


# Wisconsin's Focus on Energy - Program Update

**John Nicol, PE**

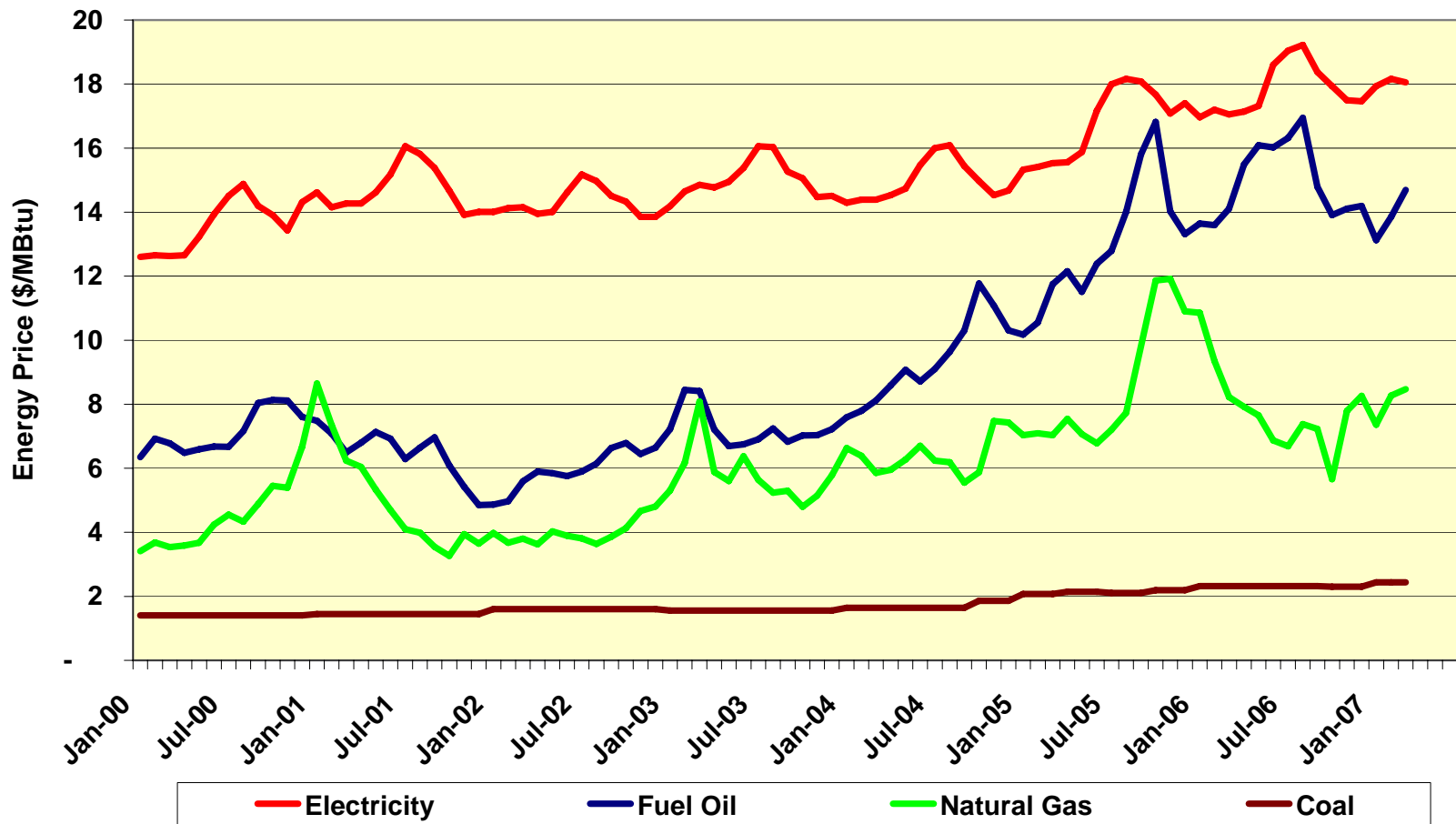
**Industrial Program Manager**

# Global Energy Consumption

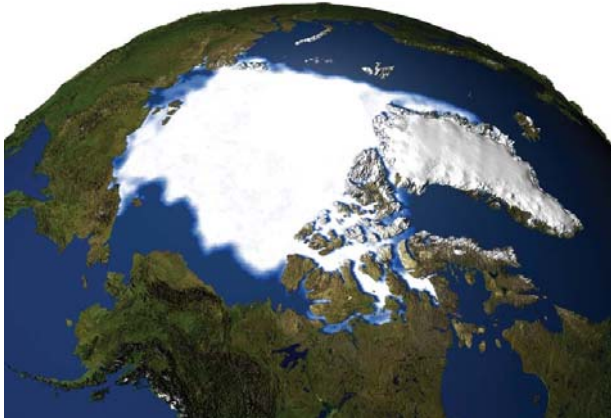


# Increased Energy Prices and Volatility

## Industrial Energy Prices



# Climate Change Concerns



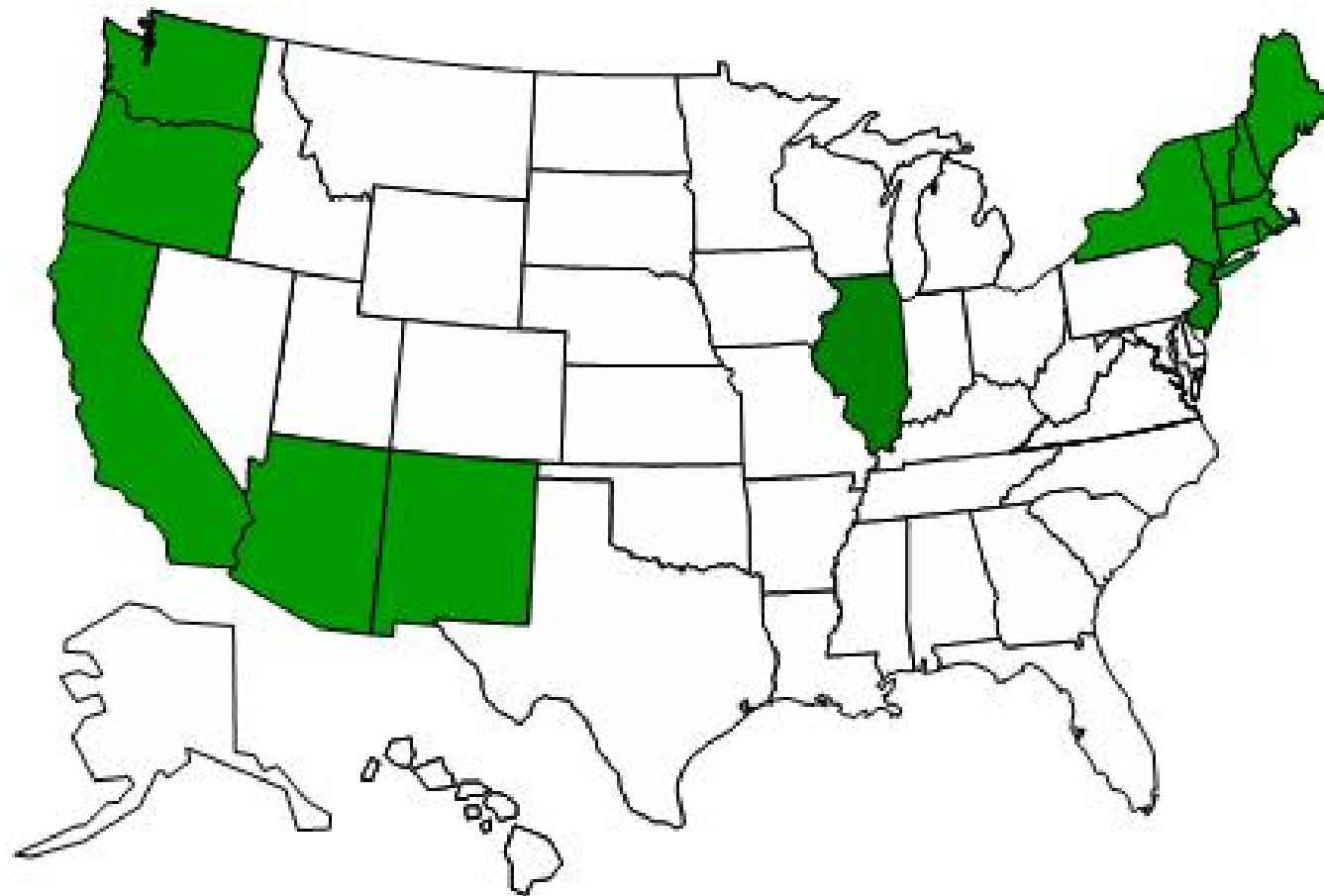
Arctic sea ice in 1979



Arctic sea ice in 2003

- Powerful scientific consensus on global warming
- Damage already occurring
- Much worse lies ahead, including risk of abrupt changes
- Major reductions (60-80% by 2050) needed to avoid dangerous warming: CA, NM, EU, UK, New England Governors and Eastern Canadian Premiers

# States with Global Warming Targets



Source: Pew Center on Global Climate Change.

# Increasing Energy Use Problems

- 1. Rising utility rates to pay for new power plants**
- 2. Business survival impacted by utility operating budgets**
- 3. Global climate change with Industrial energy responsible for a third of greenhouse gases**

# Energy Efficiency as a Solution

1. **Reducing future utility rate increases -**
  - **Energy Efficiency < \$400 per kW while it costs >\$2,500 per kW for new power plants**
2. **Business survival**
  - **Businesses have saved 20%+ of energy costs through increased efficiency**
3. **Global climate change**
  - **Increasing efficiency is the most cost effective solution by far**

# Questions?

# Focus Mission

**Accelerate the rate of energy efficiency improvement in Wisconsin by supporting energy efficiency projects that otherwise would not get completed.**

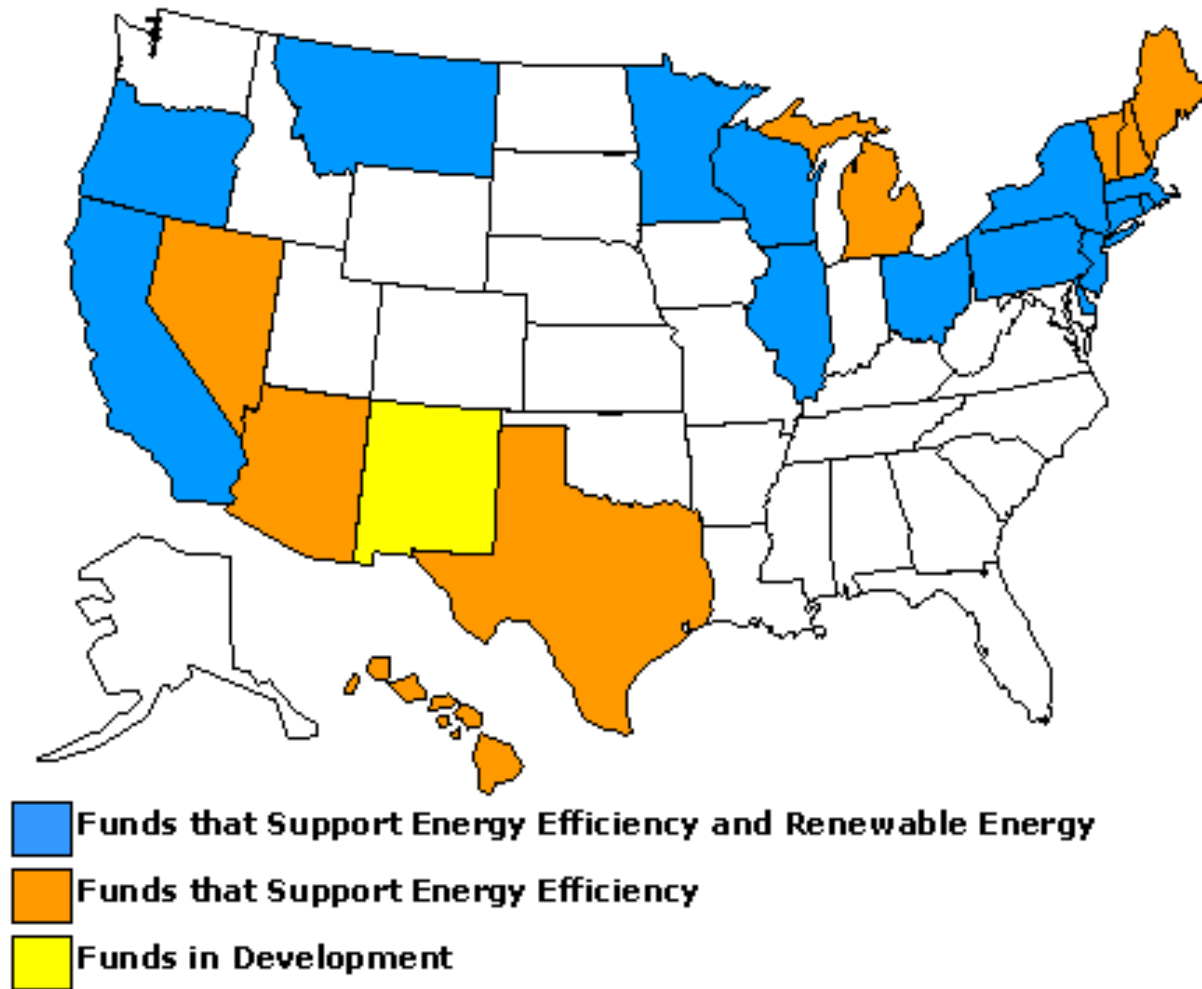
# Focus on Energy

## A Part of the Solution

### This is Your program.

- Program funds come from your rates (average is 1.2% of rates)
- Trade-off is paying 10 to 15% rate increases to pay for more >\$2,500 per kW power plants verses
- Focus on Energy at <\$400 per kW

# Similar Programs



# Current Focus on Energy Budget

## 18 Month Focus Budgets

- **\$94.7 million Total Programs**
- **\$51.6 million Business Programs**
  - **\$20 million Industrial Programs**
- **\$34.8 million Residential Programs**
- **\$8.3 million Renewable Program**

# How does it work?

- ***Prescriptive/Direct Incentives***
- ***Custom Incentives/Grants***
- ***Technical Support***
- ***Information & Education***

# Prescriptive Incentives

- ***Lighting***
- ***Compressed air studies***
- ***Compressed air leak detection***
- ***Air compressors with VSD***
- ***Premium Efficient Motors***
- ***VFD for Pumps or Fans***

# NEW Prescriptive Incentive for VFD for Pumps and Fans

- **\$50 per Horsepower** Incentive
- Up to **30%** of total project cost covered by incentive. Most projects will get 30%.
- Must have at least 2000 hours of use per year
- **Additional \$10** per horsepower if metering for one week before and after installation.

# NEW Custom Project Grants

- Grants of up to \$0.06 per kWh and \$200 per kW on first year savings.
- Up to \$0.60 per therm on first year savings
- Grants for projects with a payback between **1.5 years** and **4 years**.

# NEW Custom Project Grants

- Up to **30%** of project cost paid for, with most projects reaching 30%.
- Cap of **\$250,000** per project and **\$500,000** per company per year

# Questions?

# Feasibility Study Grants

- Feasibility Study grants are designed to assist customer in quantifying potential savings opportunities
- Prescriptive incentives available for compressed air studies
- Metering projects may qualify
- Up to **50%** of project cost, maximum of **\$7,500**
- Will consider larger grants for larger studies

# Grants are Easy and Quick

- **Easy** - Paperwork for grant application is minimal and our energy advisor takes care of it.
- **Quick** - Approval of grants in less than 10 days.

# Technical Support Service

- To identify and quantify energy efficiency projects
- To develop an energy management plan or team
- To find suppliers for equipment or services
- Tool Lending Library

# Technical Support

- **Practical Energy Management<sup>©</sup> Tool**
  - Establish and Enhance Energy Management Teams
  - Best Practices savings estimation tools
  - Energy Management program tools

# Best Practice Training

- Compressed Air Systems
- Refrigeration
- Ventilation
- Steam Systems
- Lighting
- Practical Energy Management
- Pumping Systems

[www.focusonenergy.com](http://www.focusonenergy.com)

# Best Practice Guidebooks

- Developed by Cluster Team industry experts
- Management Best Practices
- Technical Best Practices
- Energy Guidebooks for:
  - Paper
  - Metalcasting
  - Plastics
  - Dairy/Food Processing
  - Water/Waste water

# Best Practice Story – Mercury Marine

## ■ Centralized compressed air system

- 9.2 million kWh saved
- 1.1 MW
- 135,000 therms
- 6,900 tons CO<sub>2</sub>
  
- \$1,850,000 project cost
- \$541,000 energy savings
- \$60,000 Focus grant
- 3.4 year payback on energy
- 2.6 year payback with other savings
- **\$2.7 million power plant savings**



# Emerging Technology Story – Nestle USA

## ■ Condensing stack economizer

- 142,000 therms
- 826 tons CO2
- \$340,000 project cost
- \$111,000 energy savings
- \$40,400 Focus grant
- 3.1 year payback

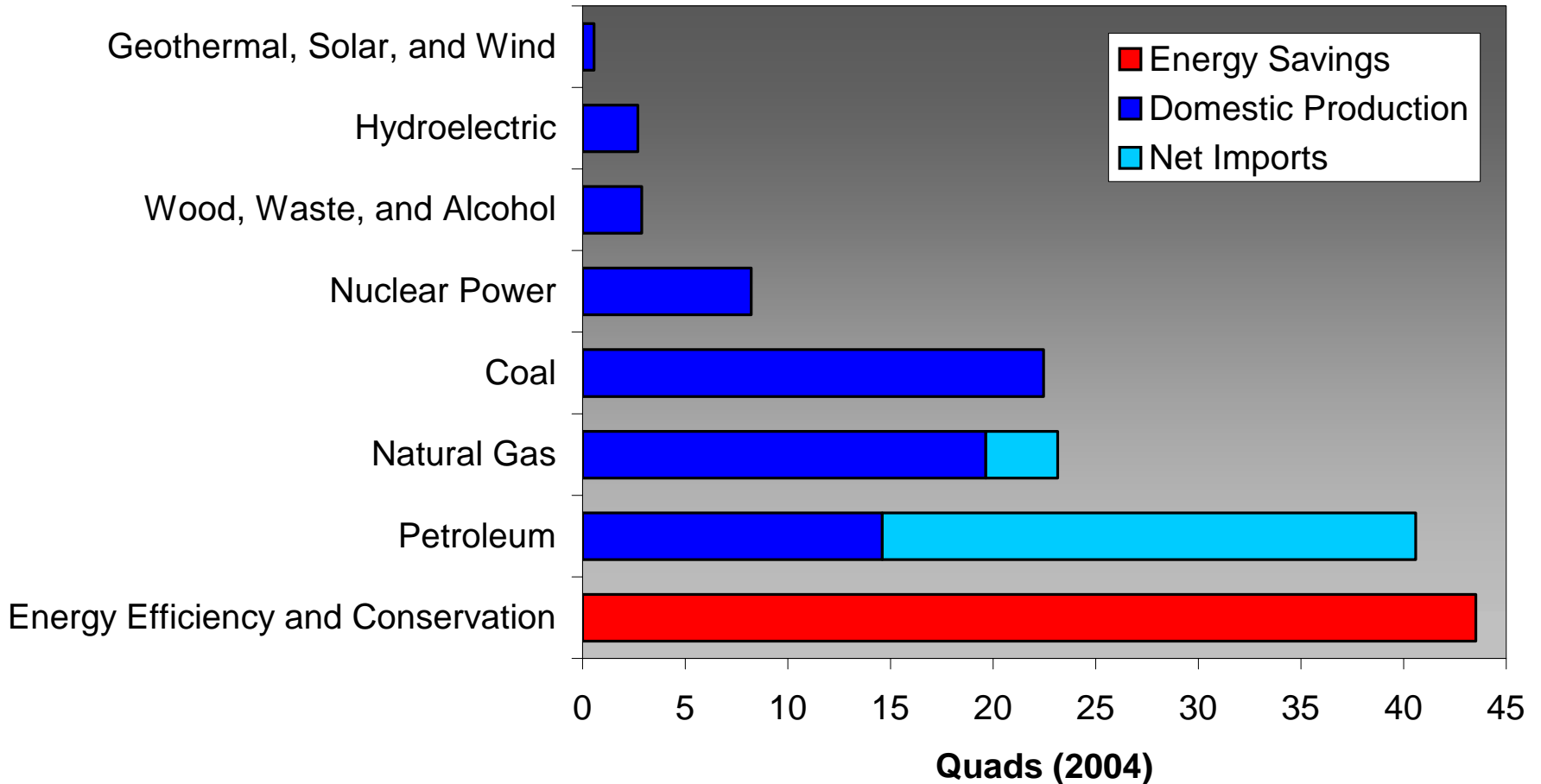


# Questions?

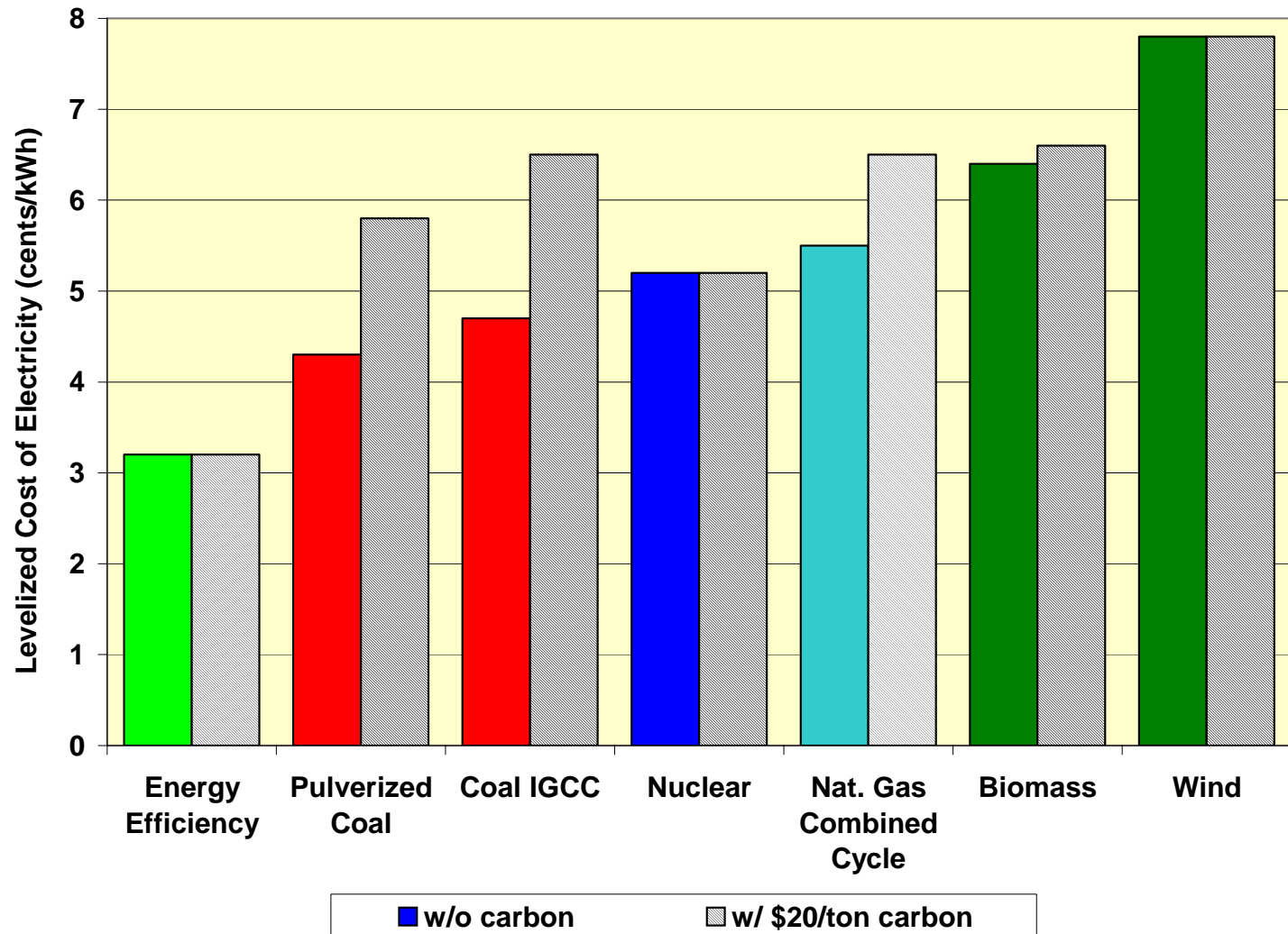
# Is Focus on Energy cost effective?

- Net results to date of entire program
  - \$225 million spent on Focus over last 6 years
  - 2001-2006 load that would otherwise exist
    - 730,000,000 kWh
    - 207 MW (**\$517 Million in power plant savings**)
    - 33,000,000 therms
    - **Over \$750 Million lifetime customer savings**

# Efficiency: America's 1<sup>st</sup> Energy Resource



# Cost of Electricity Resources



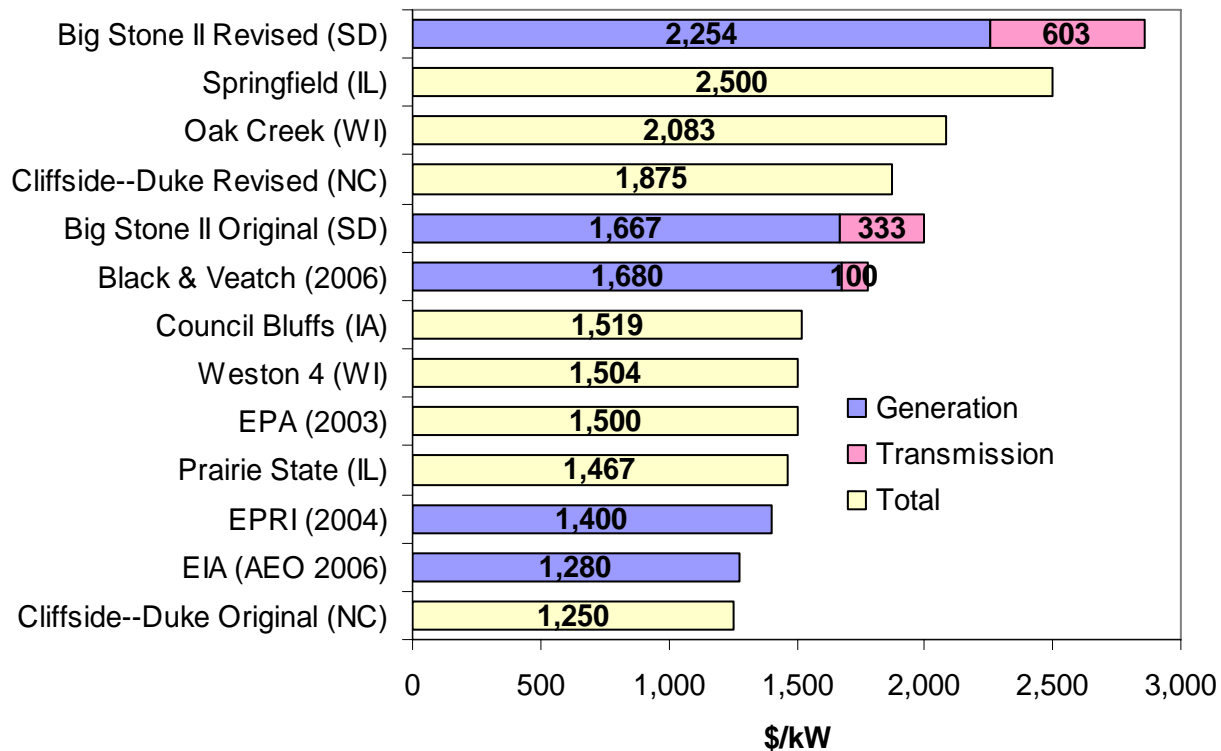
# Focus on Energy Program Benefits

Energy efficiency benefits everyone by keeping electric and gas rates lower in the future

- *Cost of typical **new coal power** plant*  
*> \$2,500/kW*
- ***Energy efficiency** programs have been able to save kW at low cost*  
*< \$400/kW*

# Cost of New Coal Plants Jump

New pulverized coal capital costs



# Focus on Energy

## Part of the Solution

- **Maximize profits for your company**
- **Keep rates low in Wisconsin**
- **Reduce the environmental impact**

# Key Focus on Energy Help

- **Technical and study support**
- **Energy management team support**
- **Grants up to 30% of project costs!**
- **Grants approved in less than 10 days**
- **Cap of \$250,000 per project and \$500,000 per company per year**

# Focus on Energy

## Part of the Solution

We can help you  
be a part of the **Solution.**

For your **Company** and your **Community**

**Call Us.**

# Questions?

## Focus on Energy

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**Industrial Sector Manager**

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