
Best Practices in Corporate Energy Efficiency Strategies

**ACEEE 2009 Summer Study on
Energy Efficiency in Industry**

July 28, 2009

Niagara Falls, NY

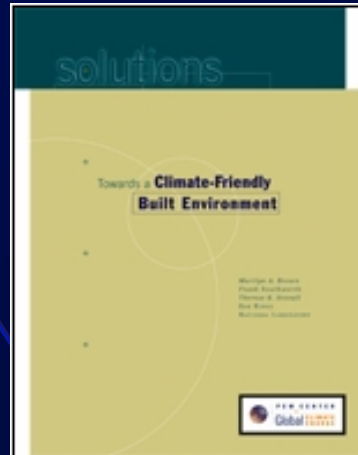
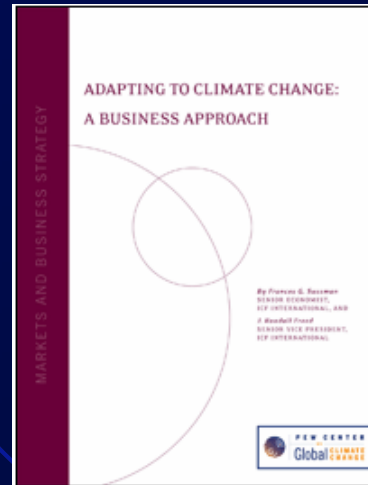
About the Pew Center

- Established in 1998 as an independent, non-partisan climate organization
- Three-fold structure – a “do” tank:
 - Research – 100+ reports over 10 years
 - Actively advise on policy – state, federal, international
 - Business Environmental Leadership Council (BELC)
 - 45 companies
 - \$2 trillion in revenues
 - Nearly 4 million employees

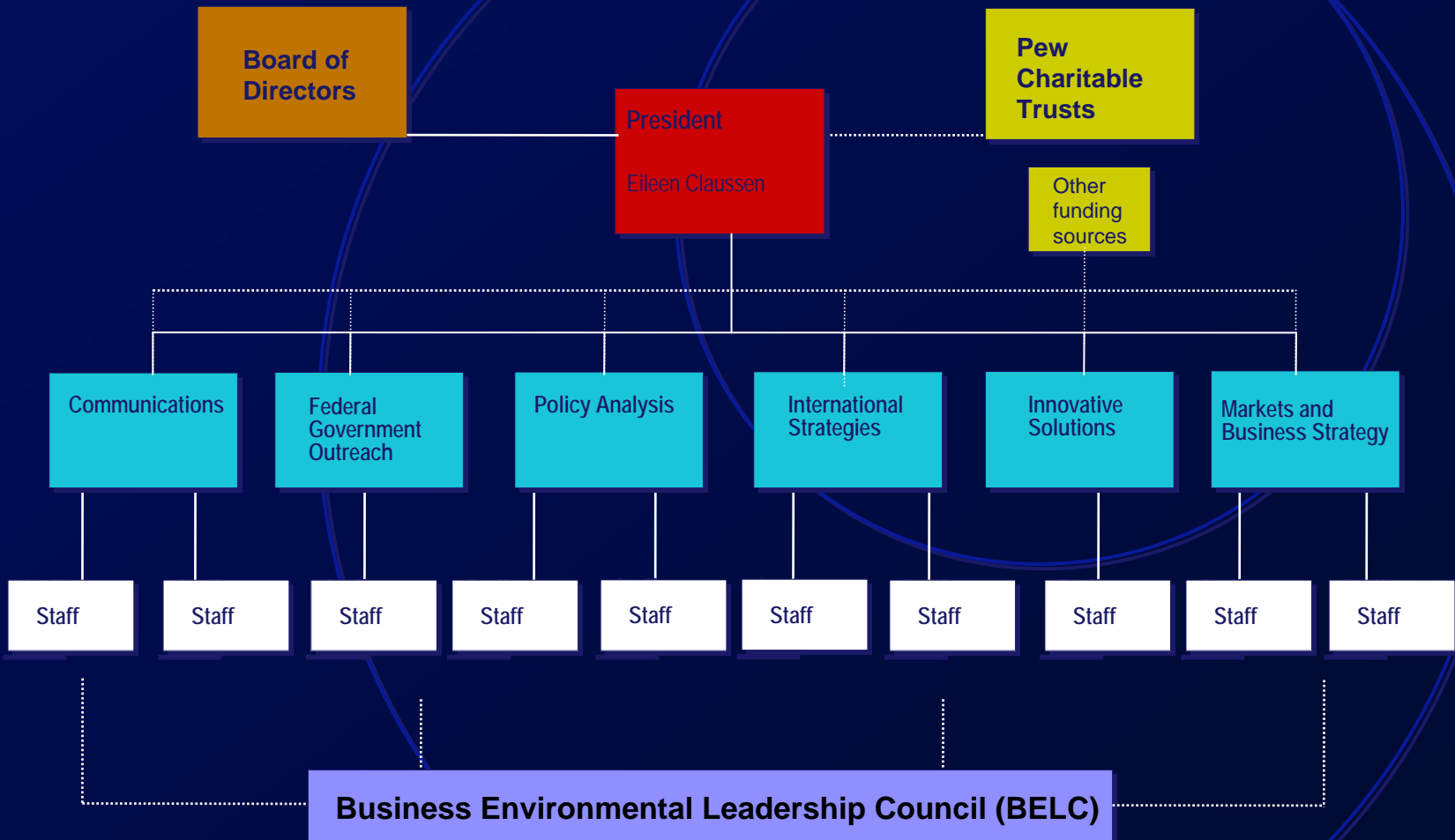
+ Business Environmental Leadership Council



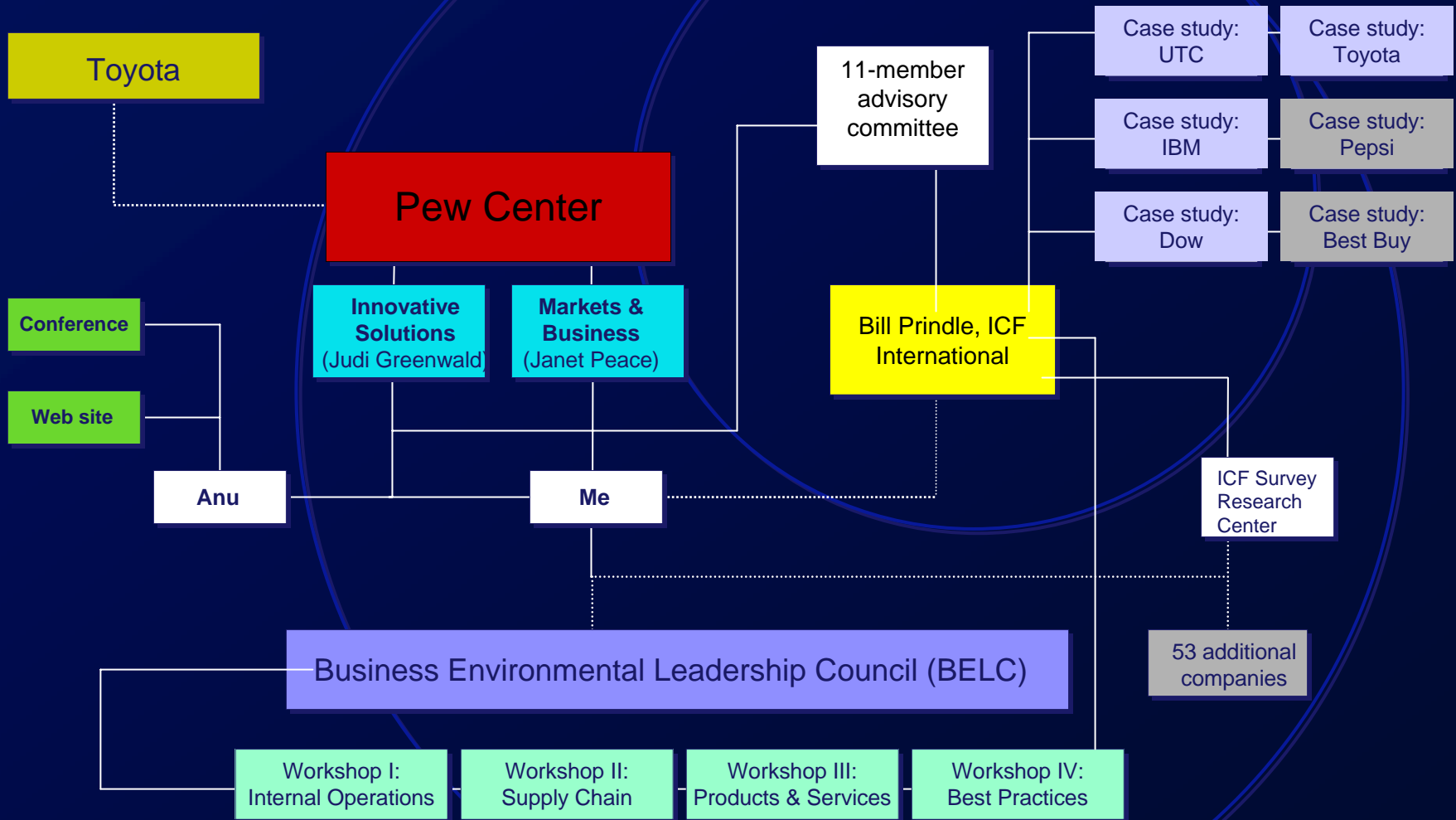
Pew Business-focused Work



Pew Center Organization Chart



Project Organizational Chart



Project Process Overview

- BELC Workshops: Opportunities for companies to present and share lessons learned. Workshop I held July 16, 2008; II, Oct. 23, 2008; III, March 25, 2009; IV, July 14, 2009.
- Survey: Designed to capture key quantitative data and broad trends in corporate efficiency programs. Last responses collected March 2009.
- Advisory Committee: 11 experts from a diverse range of sectors. First meeting held Oct. 7, 2008; second, April 6, 2009.
- Case studies: In-depth profiles of exceptional programs and strategies. First drafts complete July 14, 2009.
- Web site: On-line portal to corporate energy efficiency resources. Full deployment targeted for mid-to-late August 2009.
- Conference: Opportunity to showcase findings and stories from the report to be held upon release of report, likely March 2010.

Energy Efficiency Web Portal



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BROWSE BELC MEMBERS

Company



BELC Efficiency Database

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BELC Member Search

Explore corporate strategies of what our 43 member companies are doing on energy efficiency. You can click on a company name to see what an individual company is doing, or you can use the database and sort for different categories – just select the category you're interested in and hit the "filter" button! Hold down the CTRL key when clicking to select more than one option in the list.

Filter List by:

Company

Baxter
Boeing
BP Amoco
California Portland Cement Co.
CH2MHill
Citi
Cummins
Deere and Co.
Deutsche Telekom
Dow Chemical
DTE Energy
Duke Energy
Dupont
Eaton

Initiative

Buildings
Cross-Cutting
Internal Operations
Products & Services
Supply Chain

Industry

Agriculture
Cement
Chemicals
Consumer Goods
Electric Utilities
Manufacturing

APPLY

SHOW ALL



Cummins Summary

▲ Buildings

- Headquarters and other major facilities cut electricity consumption by 6 MW on peak demand days.
- Other facilities have installed air compressor controls and high-efficiency lighting and have begun using hot water from engine testing to melt snow, reducing the need for electric resistance wiring.

INSIDE ENERGY EFFICIENCY

- Landing page
- News
- Calendar
- External Reports
- Workshops

ENERGY EFFICIENCY
RESOURCES BY TOPIC

- Buildings
- Cross-Cutting
- Internal Operations
- Products & Services
- Supply Chain

BROWSE BELC MEMBERS

Company

Initiative

Industry

SUBMIT

SHOW ALL

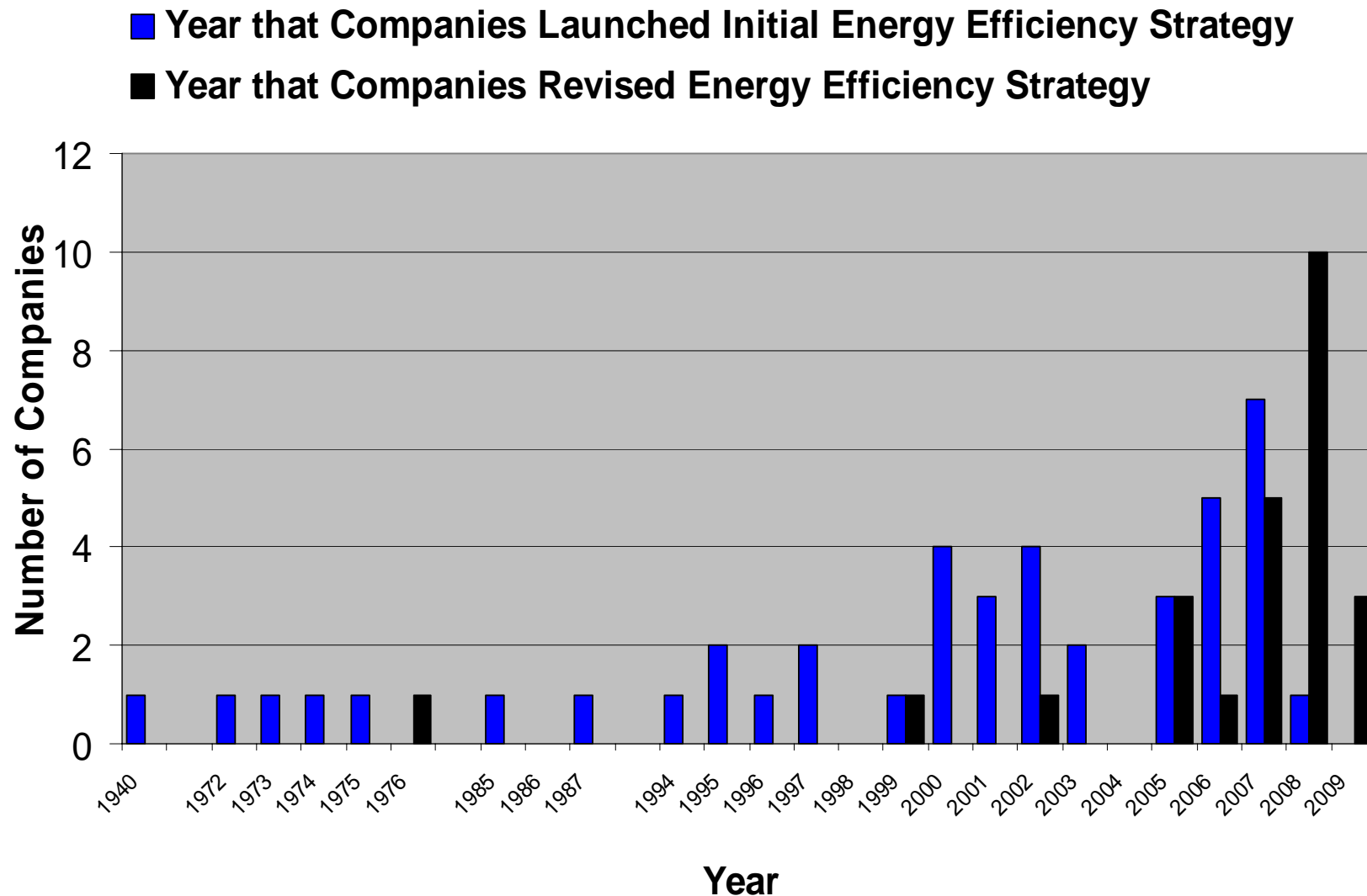
Survey: Background

- Survey designed to gather key data, identify trends, and gauge current activities
- Approximately 65 questions organized under five categories
 1. General company information
 2. Overall strategy
 3. Finance & risk management aspects
 4. Specific initiatives (internal operations, supply chains, and products & services)
 5. Lessons learned

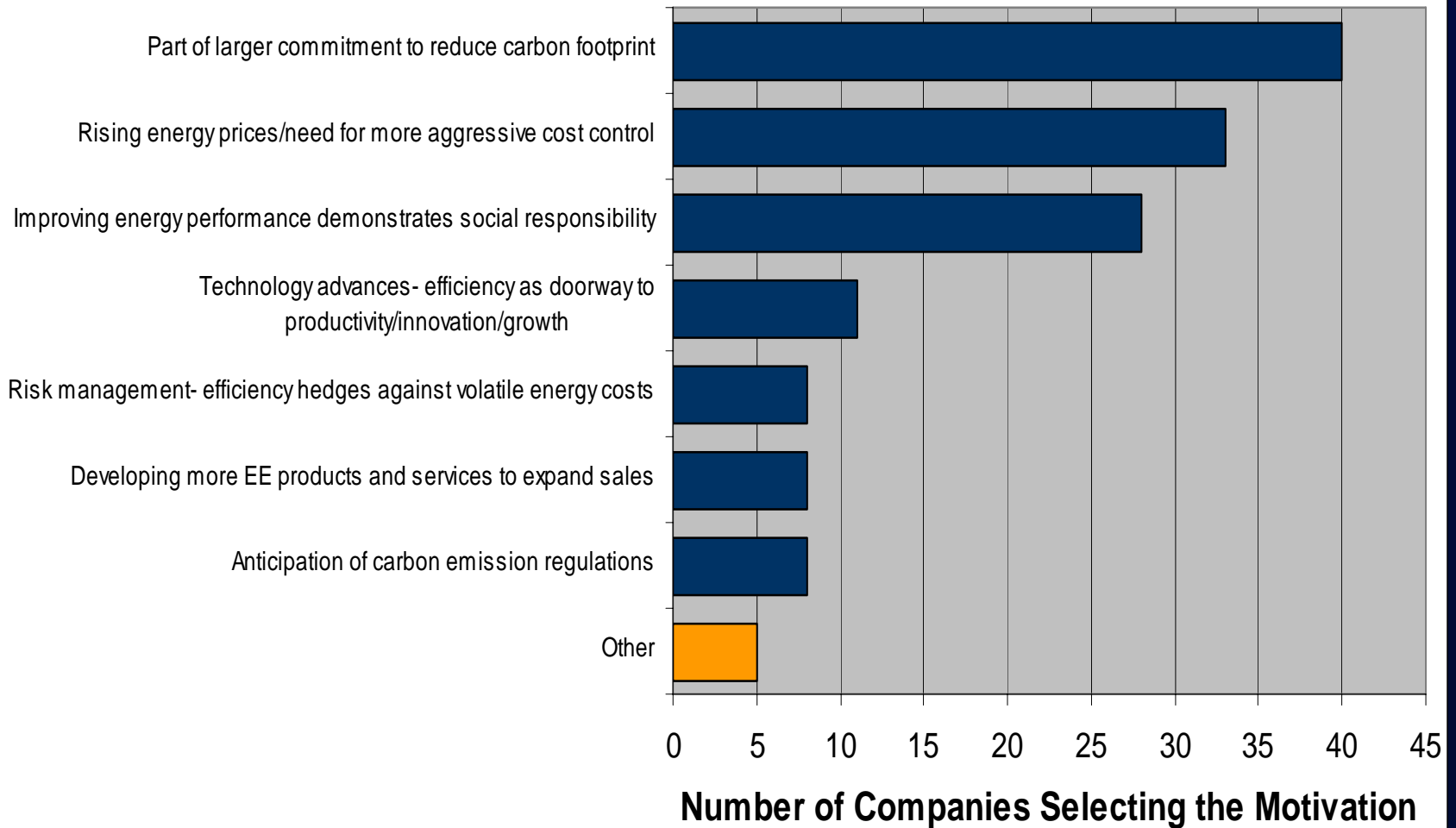
Survey Results: Savings Targets

- **Average base year: 2003**
 - Range: 1990-2009
- **Average target year: 2013**
 - Range: 2006-2040
- **Savings target divided by years in target period:**
 - Average: ~2.2%/year
 - Range: 0.5%-12.5% per year

Survey Results: Historical Timelines



Survey Results: Motivations for EE Strategies



Survey Results: Financial Criteria

- 92% report using specific financial criteria for EE investments
 - 52% use simple paybacks (mostly <3 years)
 - 50% use IRR (mostly >15%)
- 63% give “special consideration” to EE projects, such as
 - Accounting for co-benefits
 - Enhanced reputation
 - Improved competitive positioning
 - Employee morale
 - Worker productivity
 - Creating special EE capital pool
 - Applying future energy/carbon prices or other risk management factors

+ Case Studies

- + • Best Buy
- + • Dow
- + • IBM
- + • PepsiCo
- + • Toyota
- + • UTC
- +
- +

The Seven Habits of Highly-Efficient Companies

1. Efficiency is a core strategy for the company
2. Leadership and organizational support is real and sustained
3. EE goals are SMART: specific, measurable, accountable, robust, and time-bound
4. The company uses an effective EE tracking and performance measurement system
5. The organization puts substantial and sustained resources into efficiency
6. The EE strategy shows demonstrated results
7. The company communicates about EE as a core “story”

The Seven Habits

1. Efficiency is a core strategy

- Energy efficiency is an integral part of corporate strategic planning and risk assessment
- Efficiency is not stovepiped as just a cost management issue, or just a sustainability “hoop” to jump through
- The efficiency strategy pushes thinking and action across functional, technical and other organizational boundaries, driving a wider wave of innovation

The Seven Habits

2. Leadership and organizational support is real and sustained

- Senior executives talk about efficiency without notes; in important speeches, letters, and on the website
- At least one full time staff person is accountable for energy performance
- Corporate energy management leadership interacts with teams in all business units
- EE results affect individuals' performance reviews and career advancement , at all levels
- Employees are educated, trained, empowered and rewarded for energy and related innovation

+ **The Seven Habits**

+ **3. EE goals are SMART**

- + • **Corporate-wide**
- + • **Translated into business unit goals**
- + • **Specific enough to be measured**
- + • **Specific target dates**
- + • **Linked to action plans for achieving them in all business units**
- + • **Updated (and strengthened) over time**

The Seven Habits

4. An effective EE tracking and performance measurement system

- Collects data regularly from all business units
- Data is normalized and baselined
- The system benchmarks performance against goals
- The system includes regular reporting
- The system supports corrective action, and continuous improvement in a learning environment
- Performance data is vividly visible to senior management
- Performance data is broadly shared internally and externally

+ **The Seven Habits**

+ **5. The organization puts substantial and sustained resources into efficiency**

- + • **The energy manager/team has an adequate operating budget to run measurement systems, do facility assessments, etc.**
- + • **There is capital available to fund cost-effective projects the team identifies**
- + • **The organization also invests in human capital; training, empowerment, peer exchanges**

+ **The Seven Habits**

+ **6. The energy efficiency strategy shows demonstrated results**

- + • **Company energy performance goals are met or exceeded**
- + • **Successful energy innovators are rewarded and recognized**
- + • **Resources are being invested and sustained over a multi-year period**
- + • **The program resonates in the organizational culture; people are excited and engaged**

+ **The Seven Habits**

+ **7. The company communicates energy efficiency results as part of the core “stories” the company tells**

- + • **There is an internal communications plan to raise awareness and engage employees**
- + • **Successes are communicated externally in a prominent way, in Annual Reports, prominent web pages, media advertising**
- + • **The company seeks and publicizes awards from public agencies, NGOs, and industry**

Lessons Learned

- This stuff works!: companies meeting and exceeding targets
- People matter as much as technology
 - Overcoming mindsets and org. barriers key
 - Large portion of savings comes from O&M
 - Good programs resonate—release creativity and innovation
- Energy can drive a lot more than utility cost reductions

+ **Lessons Learned**

- + • **Carbon footprinting can shift energy's importance in corporate thinking**
- + • **Investment required in systems and analytics to make energy efficiency goals real, measurable, actionable**

+ Remaining Challenges

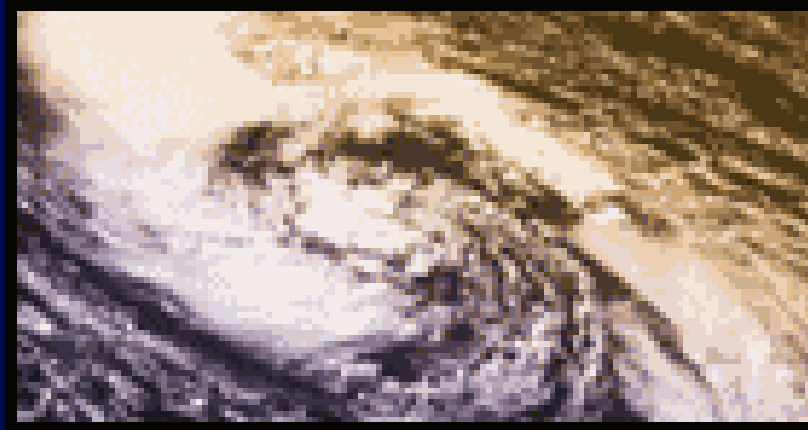
- + • **Data**—many companies still can't track energy data for 100% of operations; data granularity is also important, especially for making improvements
- + • **Capital**—funds not keeping up with waves of new project ideas
- + • **People**—aging workforce, specialty skills

Remaining Challenges

- Technology “walls”—there are some hard performance limits
- Agenda “blur”—innovation waves can generate “too much information”, confusion
- Supply Chains—many supply chain footprints exceed internal footprint
 - Measurability, cost, durability of EE data collection and goals can be challenging

For More Information

www.pewclimate.org



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