

Energy Efficiency Legislative Outlook

ASERTTI
February 6, 2006

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ALLIANCE TO
SAVE ENERGY
Creating an Energy-Efficient World

Presentation Outline



ALLIANCE TO
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- A little bit about the Alliance
- Where we are – Policy drivers
- Federal legislative outlook
 - Appropriations
 - Tax incentives
 - New legislation -- PACE
- State action

What is the Alliance?



ALLIANCE TO
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- NGO coalition of prominent business, government, environmental and consumer leaders who promote the efficient and clean use of energy worldwide to benefit the environment, economy, and national security.
- Mission: To advance energy efficiency world-wide through policy, education, research, technology deployment, market transformation and communication initiatives.
- Chaired by Senator Mark Pryor (D-AR) and James DeGraffenreidt (CEO Washington Gas) with strong bipartisan congressional, corporate & public interest leadership.



Forging Alliances: Business, Govt. & Public Interests



- Alliance enjoys sponsorship by more than 100 businesses and organizations across a broad spectrum of economic sectors
- Unique structure with expertise in research, policy advocacy, education, technology deployment, and communications

New Associates in 2004 & 2005:



What Should be Driving our Energy Policy



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■ One simple set of numbers

The **2, 5, 25** Conundrum

- The United States has
 - **2%** of the World's Oil Reserves
- And
 - **5%** of the World's Population
- But consumes
 - **25%** of the World's Oil

Policy Drivers



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- High energy prices
- Funding crunch
- Energy bill passed last year



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High Energy Prices Drive Interest

Based on EIA Short Term Energy Outlook:

- Average heating costs this winter
 - Natural gas in Midwest: \$1200, (up 82%)
 - Heating oil in Northeast: \$1508, (up 69%)
- Gasoline for a typical two-car household in 2006: \$3000 (up 30%)

- ▶ Congress wants to do something

Budget Crunch Prevents Action



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- Tax cuts (likely to be extended) *and*
 - Increased spending on war in Iraq, the war on terror, and Katrina/Rita rebuilding *means*
 - High deficits projected to continue *and*
 - Domestic spending caught in the middle
- ▶ Very little money left to do anything

Energy Policy Act of 2005



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- New Appliance Standards
 - New Tax Incentives
 - New Energy Efficiency Programs Authorized
 - New Federal Energy Management Requirements and Authorities
-
- ▶ What can Congress do this year that they couldn't do last year?

Research and Development in EPAct 2005



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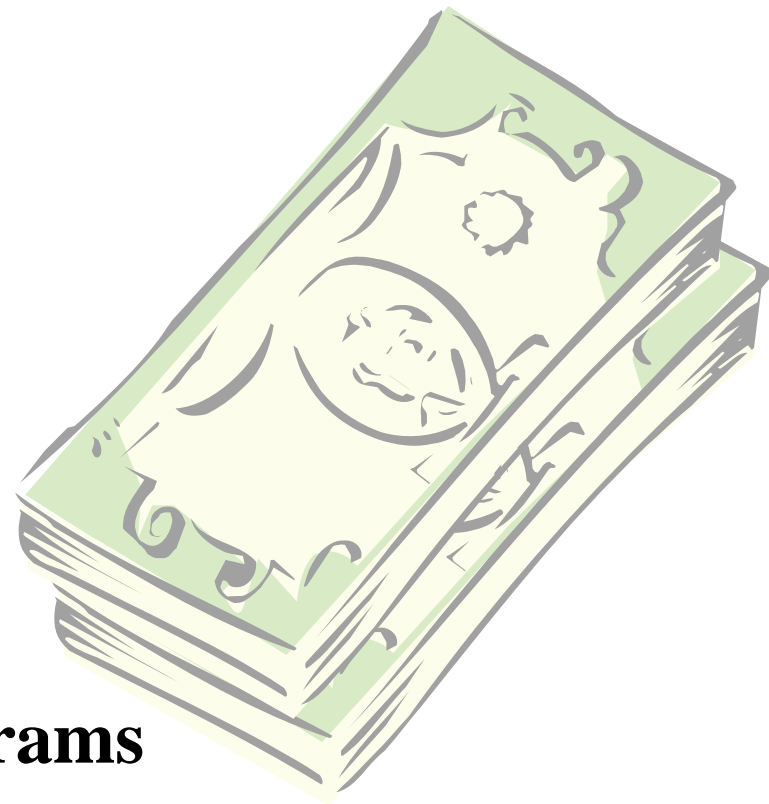
- *Authorizes* more than \$1 billion/year for energy-efficiency RD&D for 2006-2008.
 - Specific authorizations for hydrogen and fuel cells, transportation, next generation lighting, and more.
- Current *appropriations* are less than half that level and dropping.

“To Do” List....



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- ✓ Design Legislation
- ✓ Debate Legislation
- ✓ Find Political Consensus
- ✓ Congress Passes Bill
- ✓ President Signs Bill
- ? Fund Programs!**
- ? Agency Rulemakings**
- ? Agencies Implement Programs**
- ? Agency Studies**



Federal Outlook



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Appropriations

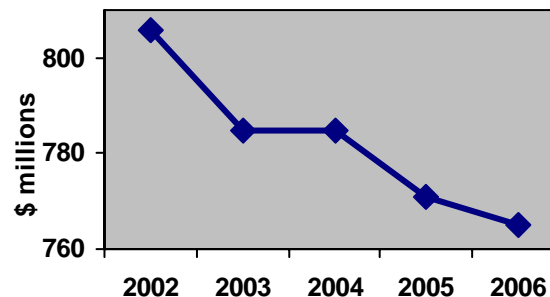


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- President proposed new energy independence initiative, but

Where is the money going to come from?

- Funding in last four years has slowly declined, with a shift from core programs to fuel cell vehicle R&D.



Appropriations Priorities



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- New initiatives in EPAct 2005:
 - Energy Efficiency Pilot Program
 - State Building Energy Efficiency Codes
 - Energy Efficiency Public Information Initiative
- Expanded duties in EPAct 2005 :
 - Appliance Standards
 - Federal Energy Management Program
 - Energy Star (EPA and DOE)

Tax Incentives in EPA Act 2005



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	Businesses (Commercial)	Consumers (Residential)	Manufacturers and Builders (Residential)
New buildings	Sec. 1331		Sec. 1332
Building improvements		Sec. 1333	
Heating and cooling equip.			
Appliances			Sec. 1334
Hybrid vehicles	Sec. 1341		
Fuel cells	Sec. 1336	Sec. 1335	



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But most only last two years...

- Two years not long enough for market transformation.
 - Commercial buildings and new subdivisions cannot be planned and built in two years.
 - Treasury Department has not issued final rules for any of the tax incentives.
- ▶ Need to extend the tax incentives

The Big Missing Piece: Transportation



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- No Fuel Economy Reforms
- No efforts to address America's Oil Dependence



New Federal Bills



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- S 2025/HR 4049, HR 4640: Oil savings targets and standards
- S 2045/HR 4370: Health care for hybrids
- HR 3762, S 1648: Increase CAFE standards
- S 1850: Extend energy tax incentives
- S 1994: Dual fueled vehicles
- HR 4593-5: Federal energy management
- At least two energy efficiency bills in the works

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Protecting America's Competitive Edge (PACE) Act



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- Introduced by Sen. Pete Domenici (R-NM) and Jeff Bingaman (D-NM)
- 57 additional cosponsors
- Inspired by a recent National Research Council report
- As for the energy bill, all the money (except for tax incentives) is authorized, *no programs without appropriations*

PACE – Energy (S. 2197)



■ **Early Career Research Grants**

- \$100,000 per year for five years for researchers less than 10 years from doctorate
- Grants from Department of Energy (65 grants), National Science Foundation (65 grants), NASA (25 grants), and Department of Defense (25 grants)

■ **Advanced Research Projects Authority – Energy (ARPA-E)**

Patterned on DARPA and housed in the DOE, APRA-E will develop transformational energy technologies.

- Support basic and applied energy research to promote revolutionary changes in technology
- Advance the development, testing, evaluation, and deployment of critical energy technologies
- Accelerate prototyping and development of technologies that would address national energy priorities.

PACE – Education (S. 2198)



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- Grants, scholarships, and fellowships for:
 - baccalaureate programs in mathematics, science, or engineering with concurrent teacher certification
 - mathematics and science education for teachers
 - math and science high school, undergraduate, and graduate education
 - basic research
- Ease student visa restrictions
- Reform patent law to make intellectual property protection more timely, predictable, and effective

PACE - Finance (S. 2199)



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- Doubles current R&D tax credit
- Tax credit for investment in continuing education
- Grants and loan guarantees for development of science parks

State Action



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In the absence of strong federal action:

- Greenhouse gas cap-and-trade
- Vehicle greenhouse gas emission standards
- Performance standards for utility energy-efficiency programs
- Appliance efficiency standards
- Building energy codes

Contact Us!



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Two Questions



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- Why do we need an energy policy?
- How does an Energy Law drive energy efficiency?

How Does an Energy Law Drive Efficiency?



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By promoting a portfolio of technologies

■ Industry

- Manufacturing Processes
- Combustion Technologies
- Best Practices (Steam, Compressed Air)

■ Buildings

- Envelope Innovations
- Highly efficient appliances
- Roofs and Roofing Materials

■ Transportation

- Lightweight Material Innovations
- Engine and Drivetrain Efficiencies
- Hybrids

How Does Energy Policy Drive Efficiency Technologies?



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- **Research and Development Creates Technologies**
 - RD&D Partnerships with Industry
- **Incentives Make them Viable**
 - Market Transformers (Tax Incentives, Rebates, Loan Guarantees)
 - Voluntary Programs (Climate Leaders)
- **Public Education Makes them Widespread**
 - Consumer Education and Awareness Campaigns
 - Labeling (Energy Star)
 - Utility Programs (DSM, Demand Response, etc.)
- **Standards Set a Floor**
 - Codes and Standards (Appliances, Equipment, Vehicles)



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Appliance Standards

- Covers 15 additional commercial and residential products
 - Commercial refrigerators, air conditioners, coin-op washers
 - Residential ceiling fans, dehumidifiers, torchiere lamps
- Directs DOE rulemakings for three new products
- Requires DOE to report to Congress every 6 months on plans to set all standards for which they have missed legal deadlines



PACE – Education (S. 2198)



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- \$1 million grants to create baccalaureate programs in mathematics, science, or engineering with concurrent teacher certification

- \$1million grants to create master's degree programs in mathematics and science education for teachers.

- 10,000 4-year undergraduate scholarships for baccalaureate degrees in mathematics, science or engineering with concurrent teacher certification.

PACE - Education



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- Ease student visa restrictions
- Reform patent law to make intellectual property protection more timely, predictable, and effective.
- New fellowships for math and science teachers in elementary and secondary schools
- 25,000 new competitive merit-based undergraduate scholarships for math and science
- Graduate research fellowships in areas of national need

PACE - Education



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- Additional authorizations for federal research and education efforts
 - \$2.3 billion over 4 years to expand Advanced Placement and International Baccalaureate programs
 - \$15.4 billion over 7 years for basic research at the Department of Defense
 - Programs include creating internships and summer programs at the National Laboratories and the creation of new specialty math and science high schools