

The Perfect Storm: Energy Efficiency in the 110th Congress

National Low Income Energy Conference
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Creating an Energy-Efficient World



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Presentation Outline

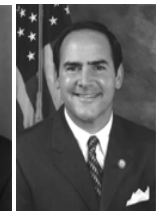
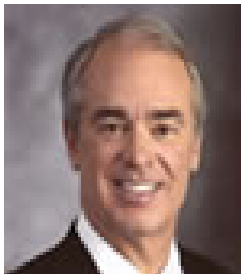
- About the Alliance
- Why Energy Efficiency
- 2005 Energy Bill Implementation
- Current Energy Legislation
- Funding for Efficiency Programs



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What is the Alliance?

- 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 Rogers (CEO, Duke Energy) with strong bi-partisan congressional, corporate & public interest leadership



Forging Alliances: Business, Govt. & Public Interests



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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



Why Energy



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“Mindful that American consumers have just spent hundreds of dollars at the gas pump over the Memorial Day weekend, both Democrats and Republicans are gearing up for the next big legislative fight in Congress — **energy policy**. Indeed, Members of both parties say **the issue may come to dominate this summer**”

- Roll Call, 5/29/07



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Energy Issues

- **Global Warming**: facing the inevitable
- **Gasoline Prices**: facing the voters
- **Energy Security**: facing Iraq

- **Electric Reliability**
- **Air Pollution**



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Why Energy Efficiency?

Energy Efficiency is an Energy Resource:

■ CHEAPER

- Each \$1 invested in Energy Star program = \$75 in energy cost savings and \$15 of investment in new efficiency technologies

■ QUICKER

- In 2001, California cut peak electricity use by 10% in less than a year

■ CLEANER

- “Negawatt” produces NO ENVIRONMENTAL FOOTPRINT

■ MORE SECURE

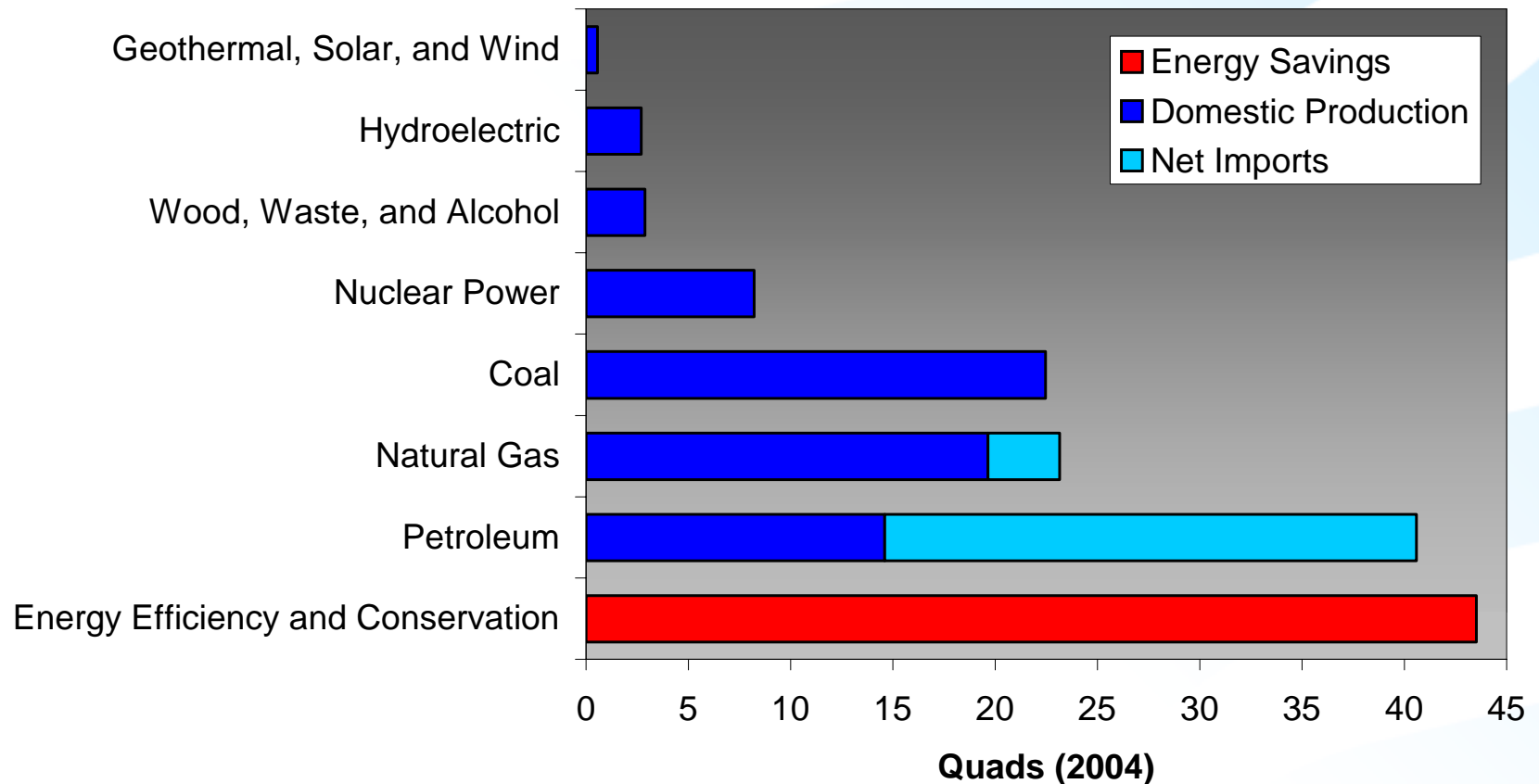
- Energy efficiency is a “homegrown” resource!

Greatest Energy Resource



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Energy Efficiency: America's Greatest Energy Resource



Source: Alliance to Save Energy



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Haven't We Been Here Before?

- Energy Policy Act of 2005 will by 2020:
 - Reduce U.S. energy use by 2%
 - Reduce electricity demand by 4%
 - Reduce oil use by 0%

- Energy savings from
 - Appliance standards
 - Tax incentives
 - New programs authorized (but not funded)

EPAct 2005: Appliance Standards



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- Covers 15 additional commercial and residential products
 - Commercial refrigerators, air conditioners, washers
 - Residential ceiling fans, dehumidifiers, torchieres
- 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



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Appliance Standards – Savings

- Total savings from existing standards by 2020:
 - 8 % of projected U.S. electricity use
 - 120,000 MW of peak power demand
 - \$186 billion in net consumer savings
- Total savings from new standards in 2020:
 - 2 % of U.S. electricity use
 - 30,000 MW of peak power demand
 - \$8 billion in net consumer savings
- Among the most effective policies for saving energy!



EPAct 2005: Tax Incentives



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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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Tax Incentives for Consumers

- **Existing Homes:** Homeowner tax credit up to \$500. Available 2006-2007.

- 10% of cost of insulation, doors, Energy Star roofs.
- 10% of cost of windows (up to \$200 credit).
- Central air conditioners, water heaters, heat pumps (\$300).
- Furnaces and boilers (\$150 + \$50 for furnace fans).

- **Vehicles:** Buyer tax credit for light-duty hybrids ranging from \$250-\$3400 depending on fuel economy.

- Phased out after manufacturer sells 60,000.
- Also credits for diesel and alternative fuel vehicles. electric vehicle credit.



- **Solar equipment and fuel cells:** 30% tax credit.



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Tax Incentives for Businesses

- **Commercial Buildings:** Deduction up to \$1.80/square foot for buildings designed to use 50% less energy than required by model commercial code. Available 2006-2008.
 - Partial deduction up to \$0.60 for building envelope, HVAC and hot water, or lighting system.
- **Vehicles:** Can use credit for light-duty hybrids and larger credit for heavy-duty hybrids.
- **Solar equipment and fuel cells:** 30% tax credit.

Tax Incentives for Builders and Manufacturers



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- **New Homes:** Builder tax credit of \$2,000 for home that uses 50% less energy than model residential code; \$1,000 for an Energy Star manufactured home. Available 2006-2008.
- **Appliances:** Tax credits ranging from \$50-\$200 for increased production of efficient refrigerators, clothes washers & dishwashers. Available 2006-2007.

EPAct 2005: New Energy-Efficiency Programs



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- Promote state electricity and natural gas programs
- Promote state building codes
- Public education programs
- Research and Development
- Weatherization (700 M), state energy (125 M), and low income community programs (20 M)
- Hybrid, fuel cell, railroad, aircraft, bicycling and other pilot programs

But almost nothing happens without appropriations...

New Energy Legislation



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New Policy Proposals

- Appliance and building standards
- Tax incentives
- Energy efficiency resource standard
- CAFE standards
- Climate cap-and-trade
- Funding for federal programs



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Appliance Standards

- First water standards for clothes washers and dishwashers
- Periodic review of all standards and test procedures
- Regional standards (condensing furnaces)
- Light bulb standard?





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Building Energy Codes

- Set targets for national model codes (IECC/ASHRAE)
 - 30% energy savings by 2010
 - 50% energy savings by 2020
- Require states to match savings and show compliance





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New Building Goals

- American Institute of Architects,
U.S. Conference of Mayors, ...
 - Reduce fossil fuel use for new and renovated buildings by 60% in 2010, rising to 100% by 2030
- ASHRAE (commercial building standards)
 - 2010 Standard 30% more stringent than 2004



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Federal Standards for Buildings

- Update federal standards for:
 - Manufactured housing,
 - New homes with federally insured (VA, FHA) mortgages
 - Public housing
- Makes housing more affordable
 - Monthly ownership cost (mortgage + utility bills) lower



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Tax Incentives

- Extend and build on EPAct 2005
 - Add tax credit for whole home retrofit:
\$800 for 20% energy savings, \$2000 for 50%
- State bonds for zero-interest loans?
- Vehicle fuel use “feebate”
 - Incentive for efficient vehicles paid for by tax on gas-guzzlers

Utility Energy-Efficiency Programs



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Why Should Ratepayers Fund Energy Efficiency?

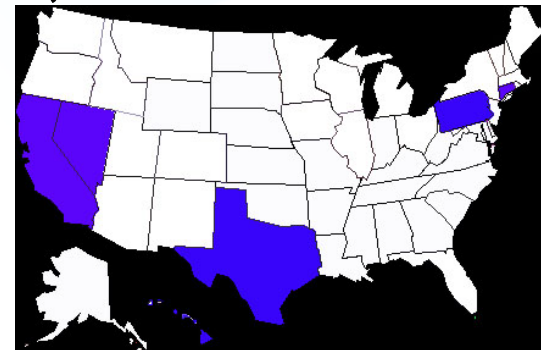
- Because it's cheaper, quicker, and cleaner than providing more energy
 - Demand-Side Management (DSM) avoids 25 GW of peak load—about 80 power plants
 - Reported cost of about 2-4 cents per kWh

Energy Efficiency Resource Standard



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- Sets energy use or demand reduction targets for utility programs
 - TX: 10% of increase in peak demand
 - CT: 1% of electricity use each year
- Can apply to electric and natural gas utilities, regulated or restructured markets
- Meet through efficiency programs, contracting with energy service companies, credit trading





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CAFE Standards

- Most bills and president agree on outline:
 - 4 percent per year increase (1 mpg)
 - Allow Transportation Dept. to base on size
- But what kind of off-ramp?
- And can Detroit send it off the road?





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Climate Policy

- Greenhouse gas emissions cap-and-trade
- Long-term gradual reductions
- Who is regulated?
- Are credits given away or sold?
- Are others allowed to earn offsets?

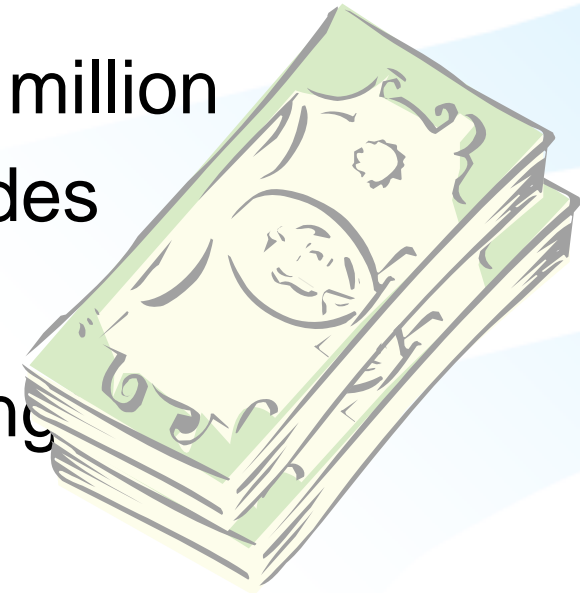
- Energy efficiency is cheapest response—
will it benefit?



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Funding for Federal Programs

- FY 2007 Continuing Resolution added \$300 million for efficiency and renewables
 - All went to renewables
- House Subcommittee added another \$400 million for FY 2008
 - Weatherization: restored to \$246 million
 - Appliance standards, building codes
 - Energy Star, FEMP
 - Commercial buildings, LED lighting



Contact Us!



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Driving Efficiency Through Policy



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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)
- **Standards Set a Floor**
 - Codes and Standards (Buildings, Equipment, Vehicles)

Federal Energy Management



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- Federal buildings no fossil fuel use by 2030
- Federal government carbon-neutral by 2050
- Existing buildings:
 - Conduct energy and water audits
 - Do all cost-effective measures
 - Do commissioning and maintenance
 - Self-certification on web