

Energy Efficiency in EISA

AESP Brown Bag Seminar
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Presentation Outline

- About the Alliance
- Why an Energy Efficiency Bill
- What's in EISA
- What Was Left Out



What is the Alliance?



- Mission: The Alliance to Save Energy promotes energy efficiency worldwide to achieve a healthier economy, a cleaner environment, and greater energy security
- Chaired by Senator Mark Pryor (D-AR) and James Rogers (CEO, Duke Energy) with strong bipartisan congressional, corporate & public interest leadership.



3

What is the Alliance?



- NGO coalition of 135+ prominent business, government, environmental and consumer leaders.
- Conduct policy, education, research, technology deployment, market transformation and communication initiatives.
- Headquartered in Washington, D.C. with operations in Eastern Europe, South Africa, Mexico, India and several states in the U.S.



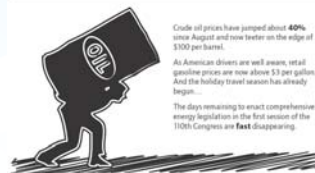
Why an Energy Bill?



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

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

THE BURDEN ON CONSUMERS IS GETTING HEAVIER EVERY WEEK



Crude oil prices have jumped about 40% since August and now hover on the edge of \$100 per barrel.

As American drivers are well aware, not all gasoline prices are now above \$3 per gallon. And the holiday travel season has already begun.

The days remaining to enact comprehensive energy legislation in the first session of the 110th Congress are **fast** disappearing.

The Corporate Average Fuel Economy (CAFE) standard has been stuck at 27.5 miles per gallon for the last twenty years. The Alliance to Save Energy urges Congress to act **NOW** to build a better energy future for America by raising the CAFE standard to at least 35 miles per gallon by 2010.

We urgently need legislation this year that will raise the CAFE standard, reduce the use of fossil fuels, and most importantly, deploy energy efficiency as our nation's quietest, cheapest and cleanest resource for tackling today's energy and climate challenges.

ACCORDING TO A RECENT REPORT FROM THE INTERNATIONAL COUNCIL ON CLEAN TRANSPORTATION,

THE UNITED STATES RANKS AT THE BOTTOM OF INDUSTRIALIZED COUNTRIES IN VEHICLE FUEL ECONOMY STANDARDS.



Contact the Alliance to Save Energy: www.ase.org, 202 Foothold Substation

Why Energy Efficiency?



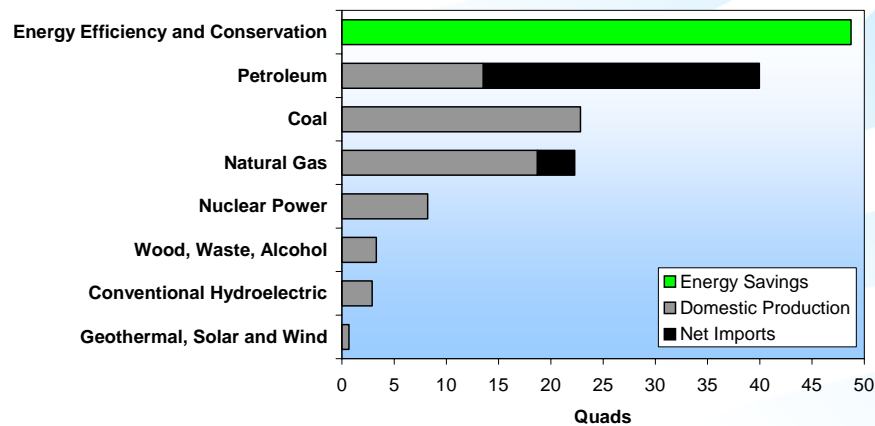
Energy Efficiency is an Energy Resource:

- **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!

Why Energy Efficiency?



Energy Efficiency: America's Greatest Energy Resource



Alliance to Save Energy, 2007
(2006 data)

7

What Can We Do Now that We Could Not 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%
 - Reduce CO₂ emissions by 3%
- Energy Independence and Security Act of 2007 will by 2020 (2030):
 - Reduce U.S. energy use by 4% (7%)
 - Reduce electricity demand by 4% (5%)
 - Reduce oil use by 5% (10%)
 - Reduce CO₂ emissions by 5% (9%)

Estimates from ACEEE, ASE

8

2007 Energy Bill



■ In:

- Vehicle CAFE standards
- Appliance standards
- Federal energy management
- Certain building standards
- R&D program authorizations

■ Out:

- Renewable/Efficiency electricity standard
- Building energy code targets
- Tax incentives

9

CAFE Standards



- DOT to set standards for cars and light trucks achieving **35 mpg by 2020**.
- Attribute-based standards, but
- Keeps car and light truck standards separate, dual fuel vehicle loophole, old testing (*so "35" really is about 25 mpg*)
- DOT to set standards for larger trucks, tire efficiency ratings



Appliance Standards



- Sets 10 efficiency standards and directs DOE to set others, mostly based on consensus agreements
 - Light bulbs, metal halide fixtures, incandescent reflector lamps
 - Clothes washers and dishwashers: water standard
 - External power supplies and standby mode
 - Furnace fans, residential boilers, dehumidifiers
 - Motors



11

Light Bulb Standard



- Sets performance standards for general service light bulbs, starting in 2012-2014
- 25-30% savings: will phase out traditional incandescent bulbs
- Second standard in 2020 must achieve roughly 65% savings



Halogená Energy Saver Household



Appliance Standards: DOE Reforms



- Periodic review of all standards and test procedures
- Allows standards to vary in 2 regions for furnaces and 3 regions for central air conditioners and heat pumps
- Eliminates rulemaking step, and expedited rulemaking for consensus standards

13

Consumer Electronics Labels



- FTC to set energy use labels for:
 - Televisions
 - Personal computers and monitors
 - Cable and satellite boxes
 - Digital video recorders
 - May add to list



Federal Energy Management



- Codifies new energy savings targets: 30% savings by 2015
- New building standards: no net fossil fuel use by 2030
- Existing buildings: audits and measures
- Permanent reauthorization and promotion of Energy Savings Performance Contracts (ESPCs)

15

Federal Energy Management: Existing Buildings



- For large federal buildings
(3/4 of agency building energy use):
- Conduct energy and water audits every 4 years, including recommissioning
 - May do all life-cycle cost-effective measures
 - Do commissioning, maintenance, and M+V on all measures
 - Self-certification on web , and benchmark energy use

From ASE Government Energy Leadership Action Team

16

Federal Standards for Buildings



- Updates/sets federal standards for:
 - Manufactured housing
 - New homes with federally insured mortgages and public housing
 - Privatized military housing



17

RD&D Programs



- Commercial Buildings Initiative:
DOE-industry R&D and deployment program to make commercial buildings carbon-neutral by 2030
 - aggressive energy efficiency to reduce demand by ~80%
 - meet remaining requirements with renewable resources



And more...

- Smart grid
- State utility regulation: consider decoupling, etc.
- CHP and waste energy
- Small business programs
- Worker training for clean energy industry
- Green buildings offices at DOE and GSA
- Leased federal buildings and procurement rules
- Lighting prizes and programs
- Industrial R&D
- Data centers
- Batteries, plug-in hybrids, materials, and manufacturing programs
- Federal vehicle fleet rules
- Block grants to local governments
- State Energy Program and Weatherization Program reauthorization
- Foreign assistance
-

19

What Was Left Out

- Cumulative savings through 2030

	Energy Savings	CO₂ Savings
Building Codes Targets	26 quads	1500 MMT
RE/EE Electric Standard	3	200
Tax Incentives	13	900

20

Building Energy Codes (in Senate climate bill)



- Set targets for national model codes (IECC/ASHRAE)
 - 30% energy savings by 2010
 - 50% energy savings by 2020
- Require states to adopt codes and show full compliance with codes
- DOE provides help



Renewable Electricity Standard (in some climate bills)



- Utilities required to provide 15% of electricity from renewable sources by 2020
- Up to 4% from energy efficiency (if states opt in)
 - Customer efficiency
 - Distribution efficiency
 - CHP and recycled energy
- Credit trading, including from 3rd parties

Tax Incentives (mostly in House bill)



- **Commercial Buildings:** Deduction extended.
- **New Homes:** Builder tax credit extended.
- **Home Improvements:** Homeowner tax credit extended.
- **Appliances:** Producer tax credit modified per consensus agreement.
- **Plug-in Hybrid Vehicles:** New buyer tax credit similar to current hybrid vehicle credit.
- **Combined Heat and Power:** New investment tax credit.
- **Smart Meters:** Accelerated depreciation for utilities.
- **State Bonds:** Zero-interest bonds.

23

“To Do” List....



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



24

Thank You!



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25

Additional slides



26

How Does Energy Policy Drive Efficiency Technologies?



- **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)

New Energy Bill



	Senate	House	Enacted Bill
CAFE Standards	Yes	No	Yes
Appliance Stand.	Strong	Stronger	Almost all
Building Codes	No	Yes	No
Electric Stand.	No	RE+EE	No
Federal Energy	New	Strong	Yes
Tax Incentives	Comm.	Some	No

Climate Legislation



- Lieberman-Warner bill passed Senate Environment and Public Works Com., likely before full Senate this spring
- House Energy and Commerce Com. working on bill (but was delayed by energy bill)
- Enactment unlikely this year
- Approps bill directed EPA to require emissions reporting



29

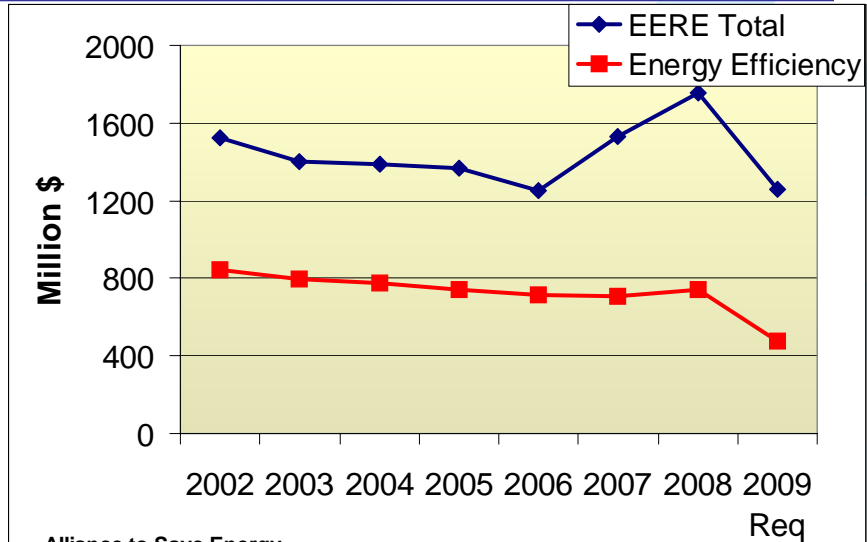
Energy Efficiency in Lieberman-Warner bill (S. 2191)



- Carbon price from cap-and-trade (rises to 70% cut in 2050) will encourage efficiency
- Allocation of credits to
 - utilities for efficiency programs and customer help,
 - states for building codes, decoupling policies, mass transit, other efficiency
- Auction of credits for efficient appliances, advanced vehicles, weatherization
- Sets national building energy code targets

30

Funding for DOE Programs



Alliance to Save Energy

Funding for Federal Programs



	2002	2008	2009 Req.
Buildings	102	111	124
Industry	126	66	62
Vehicles	248	268	221
FEMP	24	20	22
SEP	54	45	50
Weatherization	274	232	0
EPA Energy Star	60	49	44

32