



A Perspective on Federal Energy Policy for Manufacturing

Daniel Trombley

Industrial Engineering Associate

American Council for an Energy-Efficient Economy

Industrial Assessment Center Student Meeting

February 4, 2010

The American Council for an Energy-Efficient Economy (ACEEE)

- Nonprofit 501(c)(3) dedicated to advancing energy efficiency through research, communications, and conferences.
- 35+ staff in Washington DC, + field offices in DE, MI, WA and WI.
- Focus on End-Use Efficiency in Industry, Buildings, Utilities, and Transportation; Economic Analysis & Human Behavior; and State & National Policy
- Funding:
 - Foundations (34%)
 - Federal & State Grants (7%)
 - Specific Contract work (21%)
 - Conferences and Publications (34%)
 - Contributions and Other (4%)

Recent Federal Legislation

- **Energy Independence and Security Act, 2007**
- **Emergency Economic Stabilization Act, 2008**
 - ("Bailout")
- **American Recovery and Reinvestment Act, 2009**
 - ("Stimulus")
- **Omnibus Appropriations Act, 2009**



Pending Federal Legislation

- **House Climate Bill**
- **Senate**
 - Energy Bill
 - Climate Bill
 - Tax Incentives
 - IMPACT
- **Jobs Bill**
- **2011 Appropriations**



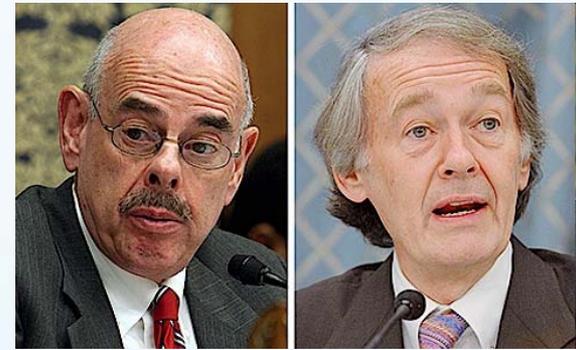
H.R. 1: American Recovery and Reinvestment Act, 2009 ("Stimulus")

- \$256m total for ITP
 - \$150m for distributed generation (including CHP) & industrial EE projects
 - \$10m for tech. deployment (includes ~\$2m for 15 IACs)
 - \$50m for data center EE
 - \$50m for other research

- Responsive proposals exceeded \$10 Billion



American Clean Energy and Security Act of 2009 — H.R. 2454 a.k.a. “Waxman-Markey”



- Establishes Cap & Trade Program
 - Applies to facilities emitting greater than 25,000 tons
 - Begins in 2014
 - Requires purchase of allowances for direct emissions
 - Establishes trading system
- Allocates 85% of allowances to various issues – ratcheting down over time
 - 35% to Electric LDCs for “public good”
 - 15% to Energy-Intensive, Trade-Exposed Industries

Efficiency Provisions in H.R. 2454

- Allocates 1/3 of Natural Gas Allowances to EE
- RES/EERS: 12% RE, 5% EE & 3% state option. End use efficiency including CHP plus T&D savings
- Support of plant performance certification standards
- Establishes expanded centers proposal—industry (IAC), buildings (BAC), and distributed energy (CEAC) with regional coordinating centers
- Premium motor replacement provision

EITE Industry Provision – Inslee/Doyle (“Carbon Leakage”)

- Provides 15% allocation to address competitiveness
- Potential to phase in border adjustments

Problems:

- Allocation based on average intensity of EITE at 6-digit NAICS code – data not available & administrability not certain
- Unclear as to restrictions on allowance allocation
- Need to invest today to reduce exposure in 2014

Senate Energy & Climate Legislation

Still a work in process—with lots of cooks in the kitchen:

- Energy legislation (S. 1462 a.k.a ACELA)-passed through E&NR Committee
- Energy tax legislation (S. 1639)
- Clean Energy Job and American Power Act (S. 1733 aka Kerry-Boxer)
- Bipartisan Kerry, Graham & Lieberman in works



Kerry-Boxer Cap & Trade

- Overall construction similar to H.R. 2454
- Allocation of allowances not finalized
- Treatment of EITE Industries in flux
- Meanwhile, Kerry, Graham, & Lieberman working on a separate, bipartisan climate bill – expected in January



American Clean Energy Leadership Act **(S. 1462)**

- DOE grants to lenders to create regional revolving loan programs for manufacturers
- Partnerships between ITP and other applied technology programs to engage in early stage manufacturing technology development
- DOE to assess potential of under-implemented technologies
- Roadmaps to plan out how to achieve decreased intensity
- Expanded IACs to reach more small- and medium-sized manufacturers and train industrial engineers
- Industrial Innovation Grants
- Joint industry-government manufacturing partnerships

Expanding Industrial Energy Efficiency Incentives Act of 2009

- Expands CHP Investment Tax Credit
- OEM Tax Credit for Advanced Motors
- Investment Tax Credit for Water Efficiency and Water Reuse
- Tax Credit for Replacement of CFC Chillers

Investments for Manufacturing Progress and Clean Technology Act (S. 617)

- Revolving Loan Program
 - Up to \$500m/year to each state
 - Manufacturers retool to create clean technologies & improve efficiency
 - \$30 billion total over two years
 - Focus on small/mid-sized facilities
- Additional funding for MEPs

Jobs bill?



- “Stimulus 2”
- Legislation still hasn’t been presented to the public, but ideas are floating
- May be significantly funded provisions for energy efficiency in manufacturing
 - Investment grants – similar format to ARRA
 - Revolving loan fund
 - Smart manufacturing
 - Manufacturing Extension Partnerships
 - R&D

Where do we go from here?

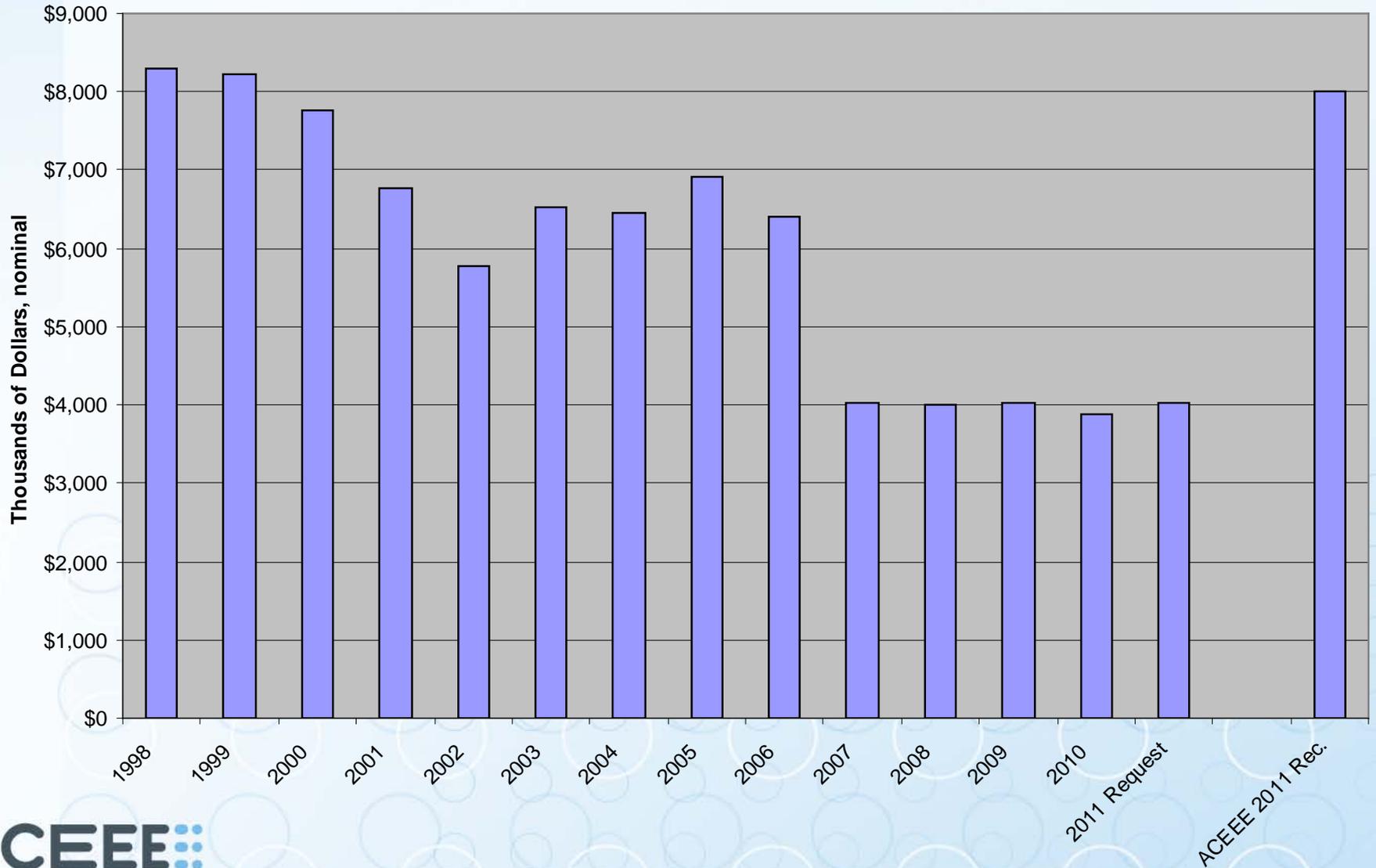
- Need figure out how to put all the pieces together in the Senate
- Kerry, Baucus, and Bingaman will likely play key roles
- Resolving industrial impacts is a critical element—Brown & Bayh leading group of 12 manufacturing Senators to address carbon leakage issues
- If climate stalls will we see Energy Bill?
- What about jobs bill?

FY2011 Appropriations (Request)

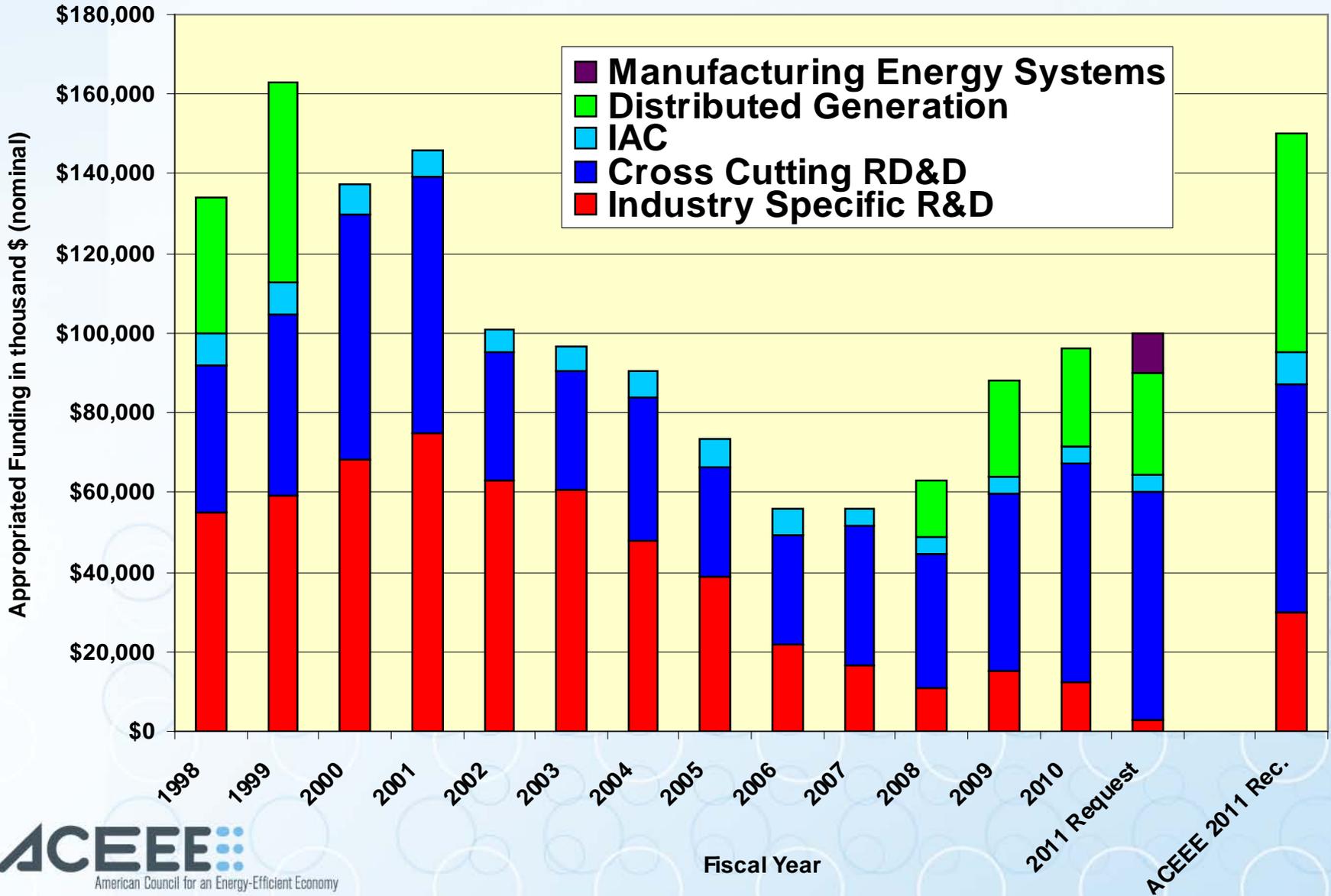
- Administration released budget request this week
 - DOE: \$28,404 Million +7%
 - EERE: \$2,355 Million +5%
 - ITP: \$100 Million +4%
 - IAC: \$4 Million +4%

- House and Senate Appropriations committees will make changes

Historical IAC funding



Historical ITP funding





American Council for an Energy-Efficient Economy

Contact Information:

Daniel Trombley
Industrial Engineering Associate
202-507-4008
dtrombley@aceee.org

529 14th Street, NW, Suite 600

Washington, DC 20045

<http://www.aceee.org>

<http://www.aceee.org/industryblog.htm>

Expanded IAC program

- Expand the network of IAC centers to meet needs for more assessment services
 - Expanded federal role should be complemented with state co-funding
- Student activities
 - conferences, training, coordination, etc.
- New program elements that explicitly enhance workforce development
 - Satellite Centers
 - Trade Schools
 - Internships

Expanded IAC program

- Expand IAC network
 - Centers of Excellence
 - ~ 10 best current IACs
 - Develop education materials, coordinate w/other schools and organization in state
 - Satellite Centers
 - Other IACs and other ABET accredited colleges
 - Provide more audits to harder to serve areas
 - Community Colleges and Trade Schools
 - Training on technical level
 - Opportunity to join audits; IAC scholarships

Expanded IAC program

- Internship Program
 - Businesses sponsor IAC students
 - After audit, student works with firm on implementation
 - ESCOs, etc. provide training
 - Opportunity to hire IAC graduates

Expanded IAC program

- Student Activities
 - DOE specialist training
 - Webcasts
 - Conferences
 - Etc...

Expanded IAC program

- Coordination
 - Other IACs
 - RACs
 - MEPs
 - State Energy Offices
 - Manufacturing Associations

Expanded IAC program

- Scope
 - Remain focused on small to medium size
 - Allow larger audits for Centers of Excellence
- Increase targeted skills
 - Nuts and bolts installation and maintenance
 - Program design and implementation
 - Energy Modeling and Analysis
 - Software Tools

Expanded IAC Funding - \$40M

- Internship program - \$5-6 million:
 - Requires 1:1 employer match
- Centers of Excellence - \$8-10 million
 - \$750,000 - \$1 million each annually.
- Satellite Centers
 - \$500,000 each
- Community colleges and trade schools
 - \$100,000 - \$300,000 each
- 1:1 Matching state funds
 - Allows states to grow more satellite centers