



National Action Plan for Energy Efficiency

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Advancing Energy Efficiency Through the National Action Plan for Energy Efficiency

Name

Title

Company/Organization



National Action Plan for Energy Efficiency

- Energy efficiency and today's energy challenges
- National Action Plan overview



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Today's Energy Challenges

- **Energy demand is growing**
- **Aging infrastructure**
- **Rising utility bills**
- **Increasing generation costs**
 - Gas and coal prices
 - Building cleaner generation
- **Reliability issues**
- **Natural gas prices increasing / volatile**
- **Carbon risk**
- **Pending large transmission and generation investments in uncertain investment world**



Energy Efficiency is a Key Part of the Solution

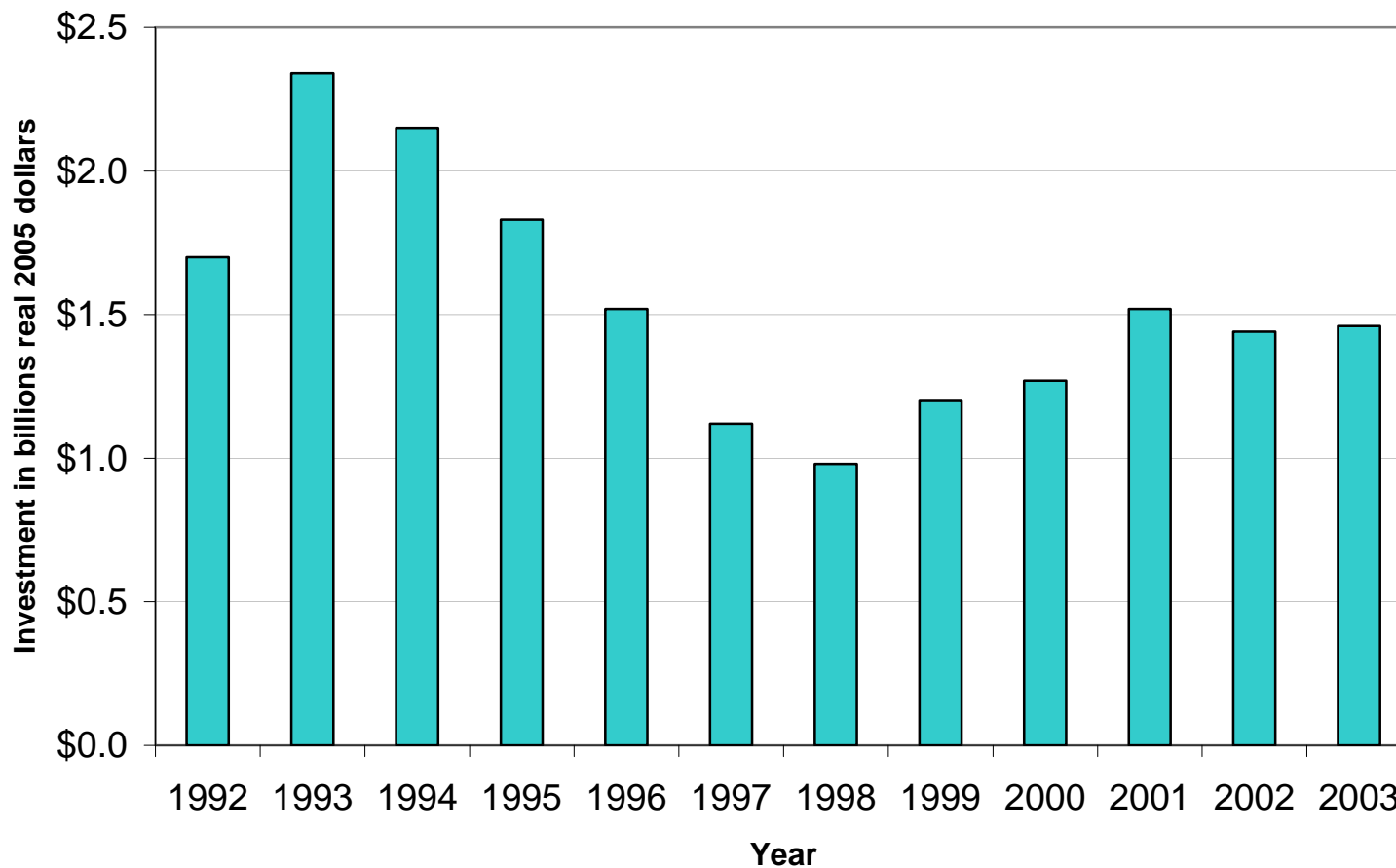
- Environmental
 - Lower carbon emissions and criteria pollutants
 - Lower water use
- Economic
 - Savings to customers
 - Lower cost (about half) compared to new G&T
 - Downward pressure on natural gas prices and volatility
 - Improved local economy, using local labor
 - Benefits low-income, seniors
- Utility System Benefits
 - Near-term tool with persistent, long-term benefits
 - Improved security of systems
 - Lower baseload and peak demand
 - Reduce need for “hard to site” G&T assets
 - Targeted, modular, manageable
- Risk Management
 - Diversifies utility resource portfolios
 - Zero carbon emissions

Quick, cheap, and clean resource



Utility Sector Spending on Energy Efficiency Has Declined

Annual Spending on Utility Sector Energy Efficiency Programs 1992-2003
(2005 real dollars)



Source: Data from ACEEE 2005 Scorecard adjusted for inflation using U.S. Department of Labor Bureau of Labor Statistics Inflation Calculator



Leading EE Programs Provide Benefits

- EE resources acquired, on average, for 1/2 the cost of typical new generation and 1/3 the cost of natural gas supply
- Many EE programs are being delivered at a total program cost of \$0.02 to \$0.03 per lifetime kWh saved and \$0.30 to \$2.00 per lifetime MMBtu saved.
 - Less than the avoided costs seen in most regions of the country.
- EE programs are being funded with 1-3% of electric utility revenue and 0.5-1% of gas utility revenue
- EE programs cut electricity and natural gas load - providing annual savings for a given program year of 0.15-1% of energy sales
 - Helps to offset 20-50% of expected energy growth in some regions



Large Benefits From Enhanced Energy Efficiency

- Long-term aspirational goal for the Action Plan is to achieve all cost-effective EE by the year 2025.
- Based on studies, available EE may be able to meet 50% or more of the expected load growth by 2025
 - This is similar to meeting 20% of electricity consumption and 10% of natural gas consumption.
- Estimated benefits from achieving this magnitude of EE nationally:
 - More than \$100 billion in lower energy bills in 2025 than would otherwise occur
 - Over \$500 billion in net savings
 - Substantial reductions in greenhouse gas emissions.



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National Action Plan for Energy Efficiency Addresses Utility Barriers

- Released on July 31, 2006 at the National Association of Regulatory Utility Commissioners meeting
- Goal: To create a sustainable, aggressive national commitment to energy efficiency through gas and electric utilities, utility regulators, and partner organizations
- Over 50 member public-private Leadership Group developed five recommendations and commits to take action
- Additional commitments to energy efficiency – exceeds 90 organizations

National Action Plan for Energy Efficiency Recommendations

1. Recognize energy efficiency as a high-priority energy resource.
2. Make a strong, long-term commitment to implement cost-effective energy efficiency as a resource.
3. Broadly communicate the benefits of and opportunities for energy efficiency.
4. Provide sufficient, timely and stable program funding to deliver energy efficiency where cost-effective.
5. Modify policies to align utility incentives with the delivery of cost-effective energy efficiency and modify ratemaking practices to promote energy efficiency investments.



Leadership Group

- Sets tone and overall direction of the Action Plan
- Released Action Plan Report and Recommendations
- Co-Chaired by:
 - Commissioner Marsha Smith, NARUC First Vice President and Member of Idaho Public Utility Commission
 - Jim Rogers, President and CEO of Duke Energy
- More than 60 leading electric and gas utilities, state utility commissioners, state air and energy agencies, energy services providers, energy consumers, and energy efficiency and consumer advocates
 - US DOE and US EPA facilitated





Leadership Group Members

- Alliance to Save Energy
- Ameren Services
- American Council for an Energy-Efficient Economy
- American Electric Power
- Arkansas Electric Cooperative Corporation
- Arkansas Public Service Commission
- Austin Energy
- Baltimore Gas and Electric
- Bonneville Power Administration
- California Energy Commission
- California Public Utilities Commission
- Connecticut Consumer Counsel
- Connecticut Department of Environmental Protection
- Connecticut Department of Public Utility Control
- Delaware General Assembly
- District of Columbia Public Service Commission
- Duke Energy
- Entergy Corporation
- Exelon
- Food Lion
- Great River Energy
- Idaho Public Utilities Commission
- ISO New England Inc.
- Johnson Controls
- Keyspan
- Long Island Power Authority
- MidAmerican Energy Company
- Minnesota Public Utilities Commission
- National Grid
- Natural Resources Defense Council
- New Jersey Board of Public Utilities
- New Jersey Natural Gas
- New York Power Authority
- New York State Public Service Commission
- North Carolina Air Office
- North Carolina Energy Office
- Office of the Ohio Consumers' Counsel
- Pacific Gas and Electric
- Pepco Holdings, Inc.
- PJM Interconnection
- PNM Resources
- Puget Sound
- Sacramento Municipal Utility District
- Santee Cooper
- Seattle City Light
- Servidyne Systems, LLC
- Southern California Edison
- Southern Company
- Tennessee Valley Authority
- Texas State Energy Conservation Office
- The Dow Chemical Company
- Tristate Generation and Transmission Association
- USAA Realty Company
- Vectren Corporation
- Vermont Energy Investment Corporation
- Wal-Mart Stores, Inc.
- Washington Utilities and Transportation Commission
- Waverly Light and Power
- Xcel Energy



Observers

- American Gas Association
- American Public Power Association
- Association of Energy Engineers
- Business Council for Sustainable Energy
- Consortium for Energy Efficiency
- Council of Energy Resource Tribes
- Demand Response Coordinating Committee
- Edison Electric Institute
- Electric Power Research Institute
- Energy Programs Consortium
- Gas Appliance Manufacturers Association
- Gas Technology Institute
- National Association of Energy Service Companies
- National Association of Regulatory Utility Commissioners
- National Association of State Energy Officials
- National Conference of State Legislatures
- National Council on Electricity Policy
- National Electrical Manufacturers Association
- National Rural Electric Cooperative Association
- North American Insulation Manufacturers Association
- Steel Manufacturers Association



Year One Accomplishments

- Reviewed key barriers to energy efficiency and surveyed policies and programs that have overcome these barriers
- Advanced the five (5) Action Plan Recommendations
- Announced over 90 public statements and commitments to advance energy efficiency through the Action Plan Recommendations
- Produced new resources to support commitments
 - National Action Plan for Energy Efficiency Report
 - Energy Efficiency Benefits Calculator
 - Consumer Energy Efficiency Fact Sheet



Commitments to Energy Efficiency

- Nearly 120 Action Plan endorsements and commitments made by stakeholders across 49 states and DC
 - State Utility Commissions – AR, CA, CT, DE, FL, HI, IA, KS, MN, NJ, NY, OR, VT, WA, WI
 - Commission Associations – SEARUC, WCPSC, NECPUC, MARC
 - Utilities – Austin Energy, BPA, Dominion Virginia Power, Duke Energy, Entergy, Exelon, New Jersey Natural Gas, PNM, Santee Cooper, Southern Company, United Cooperative Services, Xcel Energy, TVA etc
 - Other state agencies – OH and CT Consumers' Counsel; CA agencies; CT DEP; HI, MN, and OR energy departments; Governors in CA, IA, OR, and UT
 - ISO-NE and MISO
 - End-users – Dow, Eastman Kodak, Food Lion, Wal-Mart, etc
 - Additional partner organizations



Commitments to Energy Efficiency (2)

- Progress is already being made

Commitments to Implement the Recommendations of the Action Plan (as of Oct. 2007)	
Type of Commitment	No. of Organizations
Establishing and supporting state-level collaborative processes to explore how best to increase investment in energy efficiency	15
Additional money to be spent on energy efficiency programs	4
Start new and/or expand existing energy efficiency programs	17
Exploring policies and practices to align utility incentives with the delivery of cost-effective energy efficiency	5
Advancing efforts to include energy efficiency on a consistent and comparable basis with supply-side resources in future resource planning	24
Meeting aggressive energy savings goals	26
Proactively educating stakeholders on the benefits of and opportunities for energy efficiency	63



Year Two Work Plan

- Assist leading organizations in achieving their commitments—meaningful progress by summer 2007
- Engage more organizations in making commitments
- Develop new resources to support implementation of the Action Plan recommendations
- Explore approaches to address demand response
- Outreach on the Action Plan and its progress
- Recognize leadership
- Vision for 2025



Year 2 Work Helps Implement Recommendations and Options

1. Recognize EE as a High Priority Resource

- Establish policies to establish energy efficiency as a priority resource.
- Integrate energy efficiency into utility, state, and regional resource planning.
- Quantify/establish the value of energy efficiency, considering energy savings, capacity savings, and environmental benefits, as appropriate.

2. Make a Strong, Long-Term Commitment to Cost-effective EE as a Resource

- Establish appropriate cost-effectiveness tests to reflect long-term benefits of EE.
- Establish potential for long-term, cost effective energy efficiency savings by customer class through proven programs and innovative initiatives
- Establish funding requirements for delivering long-term, cost-effective energy efficiency.
- Develop long-term energy saving goals as part of energy planning processes.
- Develop robust measurement and verification (M&V) procedures.
- Designate which organization(s) is responsible for administering EE
- Provide for frequent updates to energy resource plans

4. Provide Sufficient, Timely and Stable Program Funding to Deliver EE where Cost-effective

- Decide on / commit to a consistent way for program administrators to recover energy efficiency costs in a timely manner.
- Establish funding mechanisms for energy efficiency from among the available options such as revenue requirement or resource procurement funding, system benefits charges, rate-basing, shared-savings, incentive mechanisms, etc.
- Establish funding for multi-year periods.



Year 2

Guide on EE
Potential
Studies

Guide on EM&V

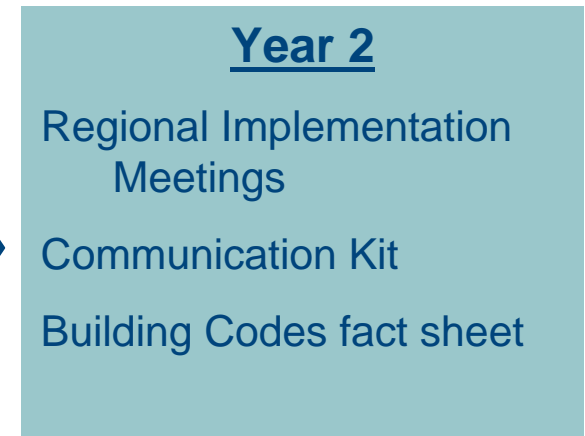
Guide on
Resource
Planning with
EE



Year 2 Work Helps Implement Recommendations and Options

3. Broadly Communicate Benefits and Opportunities for EE

- Establish and educate stakeholders on the business case for energy efficiency at the state, utility, and other appropriate levels addressing relevant customer, utility, and societal perspectives.
- Communicate role of energy efficiency in lowering customer energy bills and system costs and risks over time.
- Communicate the role of building codes, appliance standards, and tax and other incentives.





Year 2 Work Helps Implement Recommendations and Options

5. Modify Policies to Align Utility Incentives with the Delivery of Cost-effective EE and Modify Ratemaking Practices to Promote EE Investments

- Address typical utility throughput incentive and remove other regulatory and management disincentives to energy efficiency.
- Provide utility incentives for successful management of energy efficiency programs.
- Include impact on adoption of energy efficiency as one of the goals of retail rate design, recognizing that it must be balanced with other objectives.
- Eliminate rate designs that discourage energy efficiency by not increasing costs as customers consume more electricity or natural gas.
- Adopt rate designs that encourage energy efficiency by considering the unique characteristics of each customer class and including partnering tariffs with other mechanisms that encourage energy efficiency, such as benefit sharing programs and on-bill financing.



Year 2
Paper on Aligning
Utility
Incentives
with EE
Investment



National Action Plan for Energy Efficiency Key Themes from Year Two Activities

- Regional Implementation Meetings
 - Tracking shows states all at different stages of deploying EE policies
 - Common findings
 - States with high EE investment looking to do more
 - Diverse views on preferred approaches, even within a region
 - Desire for innovative approaches
 - Collaboratives valuable to advancing dialogue and building trust
 - Political environment within states changing for EE, carbon link
 - Need for high-level policy direction to pursue EE
 - Regional meeting helping shape new commitments, EE collaboratives
- Sector Collaborative on Energy Efficiency
 - Commercial customers looking to utilities for data consistency and assistance with benchmarking building energy use
 - Utilities / customer collaboration valuable to future EE efforts



National Action Plan for Energy Efficiency Next Steps

- National Update
 - Announce commitment success and new commitments
 - Release key Year Two materials
 - Vision for 2025
 - In conjunction with NARUC Annual Meeting
 - Nov. 12 in Anaheim, CA
- Continue Action Plan Outreach
- Develop Year Three Work Plan



November 12, 2007
National Update at NARUC
Annual Meeting

Year 2 EE/DR
Integration Effort

Continued outreach by
Leadership Group

January 2008 Leadership
Group Meeting
(Year Three Work Plan)



Assistance is Available to Help Advance Action Plan Commitments

- Leadership Group and other organizations will:
 - Conduct peer-to-peer information sharing and support
 - Provide education and outreach per their commitments
- DOE/EPA will:
 - Continue to facilitate the Action Plan process, including support for new resources and activities
 - Provide technical assistance to state policy makers and utilities (expanding existing efforts)
 - Share free resources from the ENERGY STAR, buildings, and clean energy programs to utilities and states



Resources for States, Utilities and Stakeholders

- **Guides and Papers**
 - National Action Plan for Energy Efficiency Report
 - Aligning Utility Incentives with Energy Efficiency Investment
 - Resource Planning with Energy Efficiency
 - Conducting Energy Efficiency Potential Studies
 - Model Energy Efficiency Program Impact Evaluation
 - National Action Plan Vision for 2025
- **Outreach Material and Tools**
 - Energy Efficiency Benefits Calculator
 - Communications Kit
 - EE Resource Database
 - Educational Briefings
- **Fact Sheets**
 - Building Codes and Energy Efficiency
 - Consumer Energy Efficiency
- **Regional Implementation Meetings**
 - Presentations and meeting summaries
 - Policy tracking tables
- **Sector Collaborative on Energy Efficiency**
 - Presentations from June 27 and 28 Meeting
 - Background Paper on Utility Data Availability
 - Energy Consumption Profiles for participating sectors



For More Information

www.epa.gov/eeactionplan

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