

Energy Efficiency Programs at the U.S. EPA

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Energy Efficiency in Tribal Communities
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Agenda

- Benefits of Energy Efficiency
- EPA's Energy Efficiency programs
 - ENERGY STAR
 - National Action Plan for Energy Efficiency
 - Guide to Action

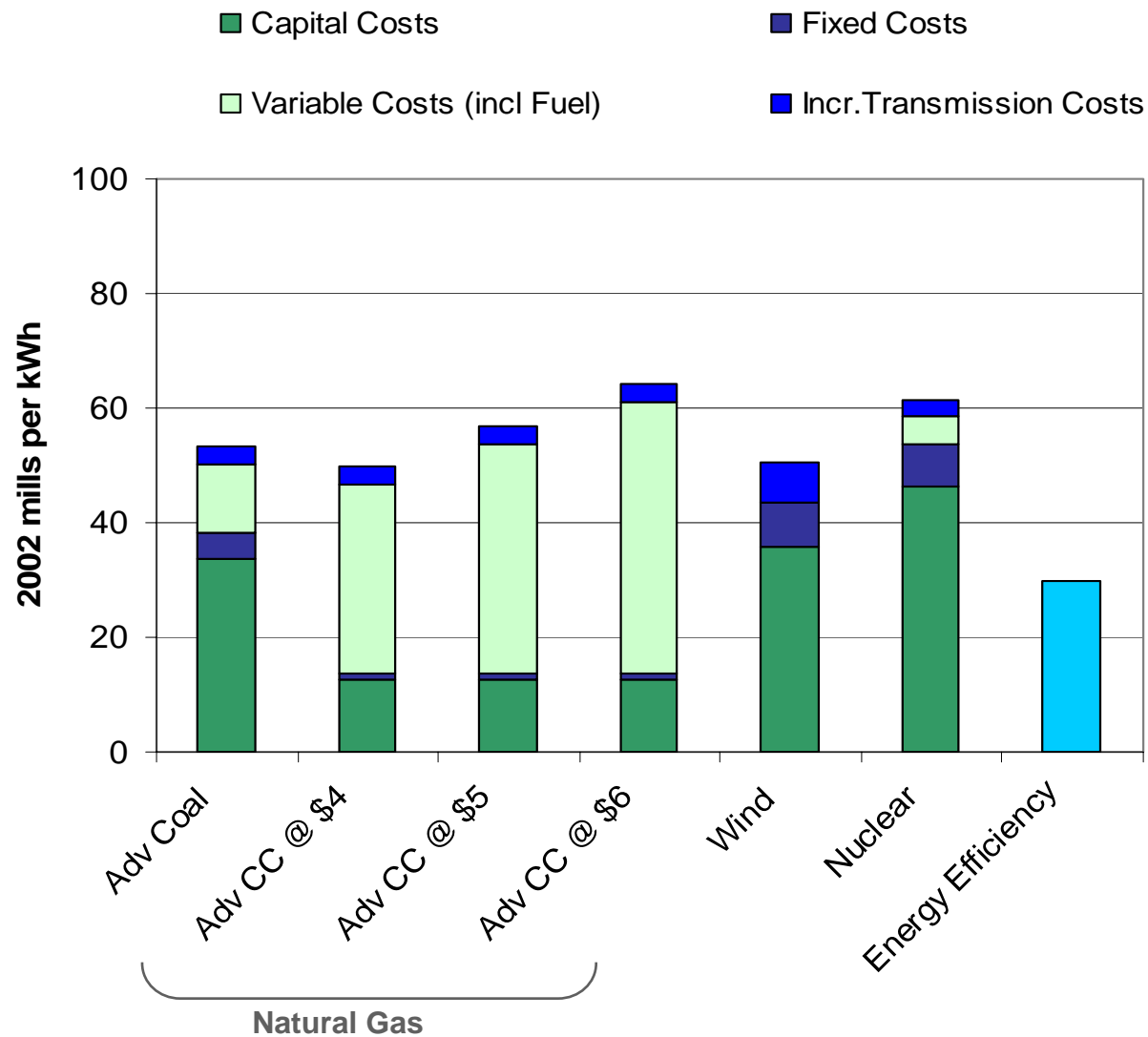
Broad Benefits of Energy Efficiency

- Environmental
 - Lower greenhouse gas emissions and criteria pollutants
 - Lower water use
- Economic
 - Lower cost compared to new generation and transmission
 - Downward pressure on natural gas prices
 - Lower wholesale electricity prices
 - Improved local economy
 - Improved service to low income and seniors
- Utility System Benefits
 - Quick fix with longer term benefits
 - Improved security of electricity and gas systems
 - Lower peak demand / improved reliability
- Risk Management
 - Diversified a utility's supply portfolio
 - Reduce environmental regulatory risk to utilities

Energy Efficiency -- More Than a Decade of Experience

- Established energy efficiency as reliable, low-cost resource
 - Real programs with real results
 - Programs delivering efficiency at 2 to 4 cents / kWh
- Established large potential to meet new demand
 - Regionally, nationally
 - Real programs
 - Can provide 50% or more of expected load growth
- Established measurement and verification procedures
 - Savings are real, persistent
 - Integrated into resource planning
- Established model energy efficiency delivery programs for key customer classes
 - Residential -- commercial – industrial
 - Low income
 - Gas / electric
 - New / mature

Energy Efficiency is Low Cost

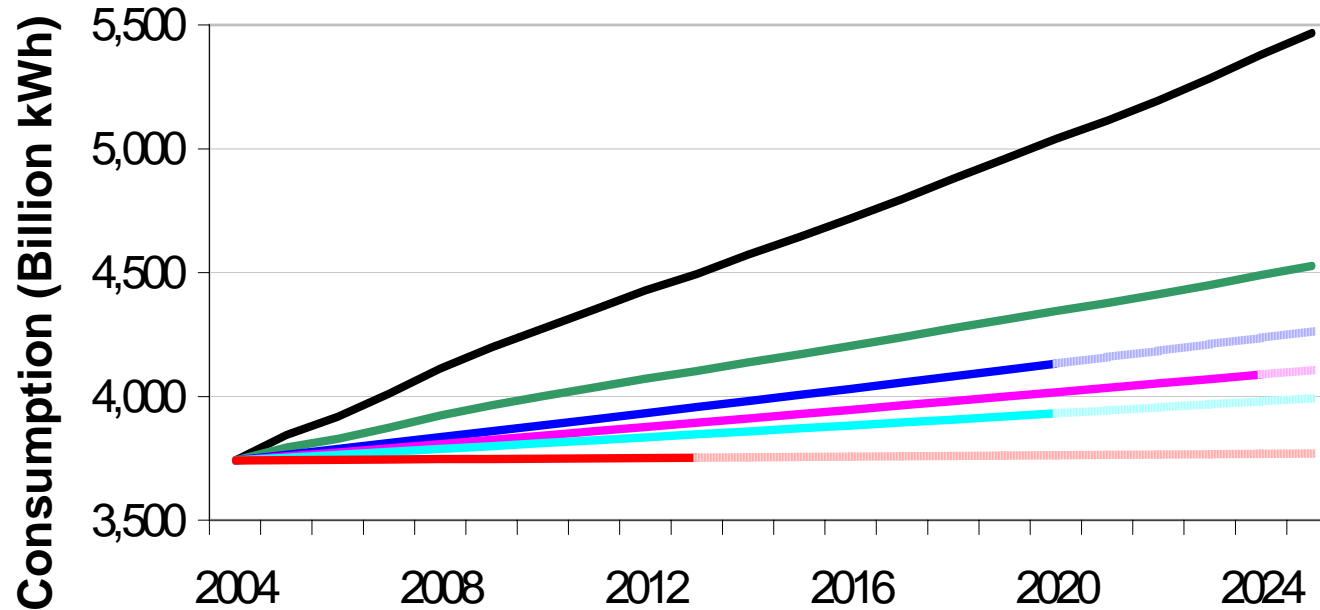


Sources: EIA 2004, ACEEE 2004



Great Untapped Potential for Efficiency Can Lower Electricity Growth by 50%

U.S. Electricity Consumption Projections



—	AEO 2005 Reference Case		[avg. annual growth 1.8%]
—	Half Growth Scenario	(17% reduction by 2025)	[avg. annual growth 0.9%]
—	5 Labs Study	(18% reduction by 2020)	[avg. annual growth 0.6%]
—	ACEEE median achievable	(24% reduction in 20 years)	[avg. annual growth 0.5%]
—	NV Study	(22% reduction by 2020)	[avg. annual growth 0.3%]
—	NEEP Study	(17% reduction by 2013)	[avg. annual growth <0.1%]

Sources: EPA, EIA AEO 2005, ACEEE, NEEP

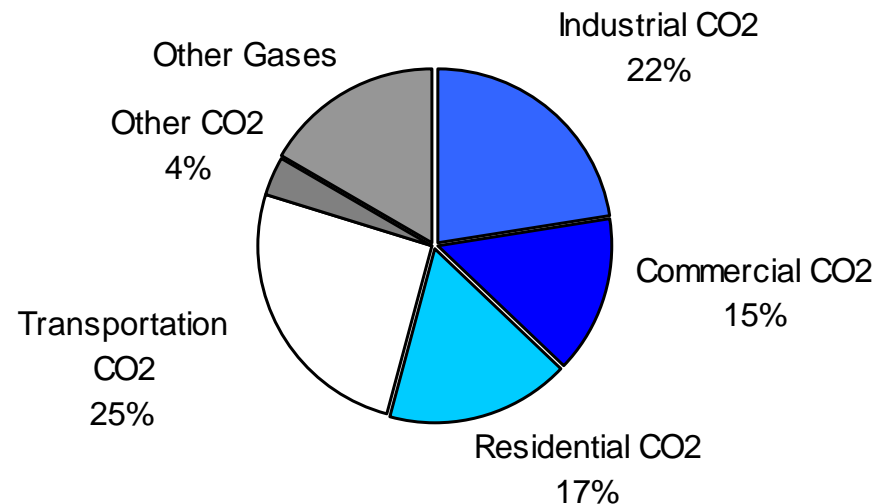


ENERGY STAR



- Reduce greenhouse gas (GHG) emissions through large win-win-win opportunities with today's energy efficient technologies and practices
 - 30% savings in many buildings, homes, and facilities
- Provide credible information to buyers to
 - reduce transaction (research) costs
 - reduce perceptions of risk
 - enhance investment in efficient technologies and practices
- Work with the marketplace to build on motivations of important individual actors

**Greenhouse Gas Emissions by Sector
2000**



Broad Strategies



Residential

Labeled Products

- 40+ products / 1400 manufacturers
- 10-60% more efficient

Labeled New Homes

- 30% more efficient

Home Improvement Services

- beyond products
- ducts / home sealing
- whole home retrofits



Commercial / Industrial

Corporate energy management

- benchmarking, goals, upgrades
(management, systems more than widgets)
- whole building labeling for excellence

Labeled Products

- for plug loads -- not system components

Small business initiative

ENERGY STAR Success to date



- Started in 1992; now the government backed symbol for energy efficiency
- In 2005, Americans, with help of ENERGY STAR:
 - saved \$12 billion on energy bills
 - prevented greenhouse gas emissions equal to 23 million cars
 - met 4% of total 2005 electricity demand
- ENERGY STAR recognized by over 60% of Americans

- More than **2 billion** ENERGY STAR products have been sold to date.
- More than 2,500 builders have constructed over **500,000** ENERGY STAR homes.
- EPA's Energy Performance Rating System has been used to evaluate more than 26,000 buildings; 25% of office buildings, 15% percent of schools, 25% of supermarkets, 38% of hospitals, 14% of hotels have been benchmarked.
- More than **2,500** buildings have earned the ENERGY STAR

Where to Find ENERGY STAR



- Utility partners - serving over nearly 50% of US households
- Stores - more than 21,000 storefronts in 50 states
- Products - more than 1,400 manufacturers in 40+ product categories, including:
 - Lighting
 - Electronics
 - Appliances
 - Heating & cooling systems
 - Programmable thermostats
 - Windows, doors, & skylights
 - Commercial food service
- Commercial buildings – work with Energy Service Providers
 - 4,400 commercial buildings partners (13% of building market)
 - Includes over 500 public sector partners representing 2.5 billion sq. feet

Raise Awareness of Energy Savings with ENERGY STAR

- **ENERGY STAR Action Guide** - 5 steps anyone can take in their home:
 1. Change 5 lights
 2. Look for the ENERGY STAR when buying new products
 3. Seal up your home
 4. Heat and cool smartly
 5. Tell friends and family
- **www.energystar.gov**
 - Information resource for consumers, businesses, program sponsors, home builders, manufacturers, and energy service providers
- **National Marketing Efforts**
 - ENERGY STAR Change a Light, Change the World Campaign
 - ENERGY STAR appliance promotion
 - ENERGY STAR Cool Your World

National Action Plan for Energy Efficiency

- Goal – “To create a sustainable, aggressive national commitment to energy efficiency through gas and electric utilities, utility regulators, and partner organizations”
- 50 member Leadership Group includes utilities, regulators, energy directors, consumer advocates, NGO’s, industrials, and others
 - Co-chaired by Iowa Commissioner Diane Munns, President of NARUC, and Jim Rogers, President and CEO of Duke Energy
 - EPA/DOE facilitated
- Addresses:
 - Rationale for energy efficiency
 - Barriers that limit investment by utilities in EE where cost-effective
 - Aligning incentives
 - Best practices – business cases – for integrating energy efficiency
 - Best practices for energy efficiency program delivery

National Action Plan

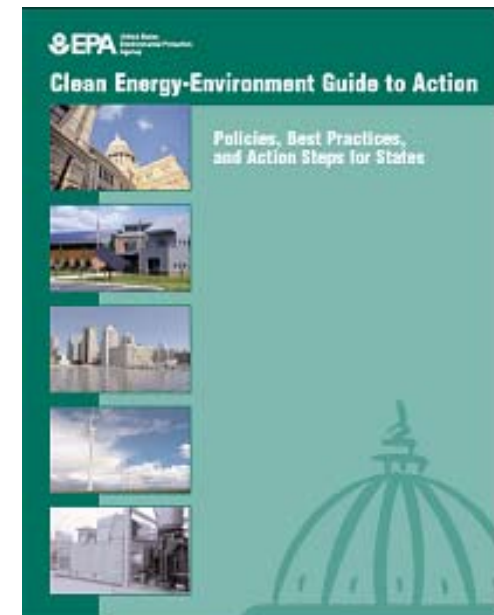
www.epa.gov/cleanenergy/eeactionplan.htm

- Timeline:
 - Leadership Group Meetings on December 2 and March 23
 - Working Groups Reports by Summer 2006
 - National press release on July 31, 2006 in conjunction with Summer Meetings of the National Association of Regulatory Utility Commissioners
- Working Group Reports:
 - Recommendations for action by the Leadership Group
 - Supporting information to address existing barriers to utility programs
 - Resource Planning Processes
 - Utility Ratemaking and Revenue Requirements
 - Rate Design
 - Energy Efficiency Program Best Practices
- Additional resources
 - Energy Efficiency Benefits Calculator
 - List of experts and resources
 - Sample energy efficiency workshop agendas
 - Factsheets and presentations on the benefits of energy efficiency

EPA Clean Energy-Environment *Guide to Action*

- **The *Clean Energy-Environment Guide to Action* describes 16 cost-effective clean energy policies that states have successfully implemented**
 - Builds on established state models and experiences in designing, implementing, and evaluating clean energy programs.
 - includes specific action steps, best practices and lessons learned
 - Designed to help states develop new clean energy programs or enhance existing ones
- **Designed for use by state energy and environmental policymakers.**
 - Identifies action steps for air and energy officials and utility regulators
 - Describes role of state legislatures, executive branch and other state agencies
 - Includes numerous state examples and federal, state and nonprofit resources
- **Available on EPA's Clean Energy Web site**
 - <http://www.epa.gov/cleanenergy/stateandlocal/>

New Report!



EPA Clean Energy-Environment Guide to Action

Policy	EE	RE	DG/CHP
State Planning and Incentive Structures			
Lead by Example	X	X	X
State and Regional Energy Planning	X	X	X
Determining the AQ Benefits of Clean Energy	X	X	X
Funding and Incentives	X	X	X
Energy Efficiency Actions			
Energy Efficiency Portfolio Standards	X		
Public Benefit Funds for Energy Efficiency	X		
Building Codes for Energy Efficiency	X		
State Appliance Standards	X		
Renewable Energy and Combined Heat and Power			
Renewable Portfolio Standards		X	X
Public Benefit Funds for Clean Energy Supply		X	X
Output-Based Environmental Regulations		X	X
Interconnection Standards		X	X
Fostering Green Power Markets		X	X
Utility Planning and Incentive Structures			
Portfolio Management Strategies	X	X	X
Utility Incentives for Demand-Side Resources	X	X	X
Emerging Approaches: Removing Rate Barriers to Distributed Generation	X	X	X



Summary

- Energy efficiency can control load growth by 50%
- Existing platforms exist to integrate energy efficiency
- Variety of ways tribes can take action, including:
 - Recognize the value of energy efficiency
 - Gain council support for energy efficiency funding
 - Continue efforts to improve efficiency in homes, schools, hospitals and other buildings
 - Communicate energy savings throughout your tribal community