

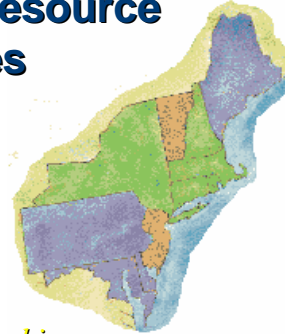
## Energy Efficiency as a Resource in Northeast States

\* *except NY*

*Presented to:*

*ACEEE Conference on  
Energy Efficiency as a Resource*

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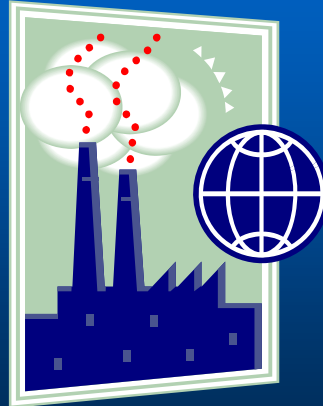
## Overview

- **The Past:** Energy efficiency based on resource acquisition in Northeast between 1985-1995
- **The Present:** Efficiency not treated as a resource in most Northeast states 1995 - 2005
- **The Future:** Recent renewed interest in efficiency as a resource – could double energy savings – requires **policy leadership!**

## Efficiency as a Resource 1985-1995

### > The First Wave of Efficiency: 1985-1995

- The Policy Drivers
  - Projected economic growth (3% per year)
  - Increased fossil fuel prices
  - High cost of nuclear plants
  - Public Utilities Regulatory Policy Act (PURPA)
  - Increased cost recovery risk for new supply
  - Clean Air Act



## Efficiency as a Resource 1985 - 1995

### Energy Efficiency Policy Elements:

- **Integrated Least Cost Planning** – resource adequacy, cost, risk
- **Rate Cases** – economically used & useful
- **Power Plant Siting** - economic and environmental justification
- **State Energy Plans** - reliability, diversity, cost
- **State Appliance Efficiency Standards + Building Energy Codes** – efficiency minimums
- **Low Income Weatherization** – health, safety, affordability
- **Focus** → Electricity savings + gas efficiency in MA, VT, MD

## Efficiency as a Resource 1985-1995

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### Typical DSM Policy Framework:

- **Utility Least Cost Plan**
  - Required every 2-3 years or when new supply proposed
  - Goals for demand-side and supply-side resources
- **Demand-Side Management Plan**
  - Program designs, evaluation plans, and budgets
  - Cost-effectiveness analysis
- **Cost Recovery**
  - Dollar-for-dollar recovery for approved plan
  - Lost base revenues
- **Performance incentives** → tied to results
- **Program Evaluation**
  - Annual reports
  - True-up estimated energy savings

## Efficiency as a Resource 1985-1995

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### Ratepayer funding for efficiency peaked in 1992

- \$500 million+
- Across New England, NJ, MD, PA



## Industry Restructuring 1995 - Present

### Public Benefit Funds 1995 - 2005

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- **Public Benefits Funds replaced DSM Planning:**
  - **Purpose** – maintain economic and environmental benefits of energy efficiency until competitive market for energy efficiency services develops.
  - **Policy drivers:**
    - Environmental and consumer support for restructuring
    - Ease transition to competitive market
  - **Exceptions**
    - VT – no restructuring, Efficiency Vermont settlement capped funding
    - MD, PA – no efficiency funding

## Societal Benefit Funds 1995 - 2005

### Typical Policy Elements

- Funding levels set legislatively – reduced ↓
- Set aside for low-income
- Emphasis on statewide programs – equitable distribution of benefits
- Annual program plans and budgets
- Public advisory committees
- Market transformation to broaden benefits
- Move to state/independent program administration
- Limited funding for R&E and evaluation
- Not tied to energy resource needs

## Societal Benefit Funds 1995 - 2005

### Ratepayer funding for efficiency:

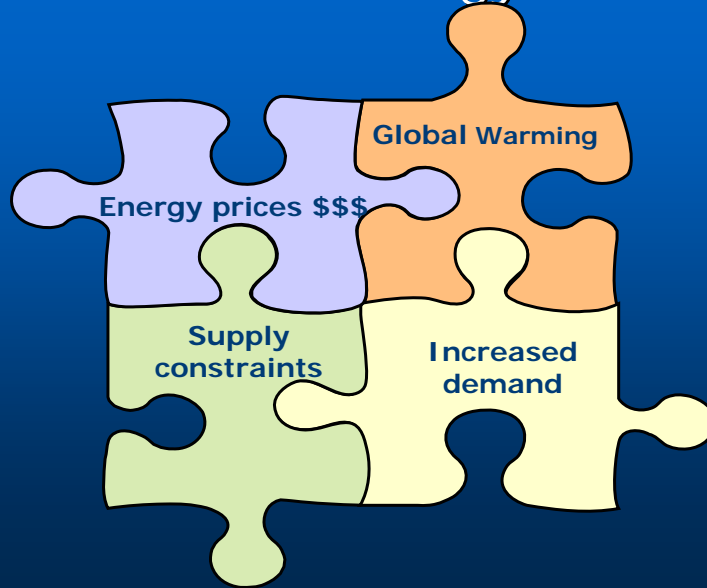
#### Pre-restructuring:

\$500 million plus 1992  
*New England, NJ, MD, PA*

#### Post-restructuring

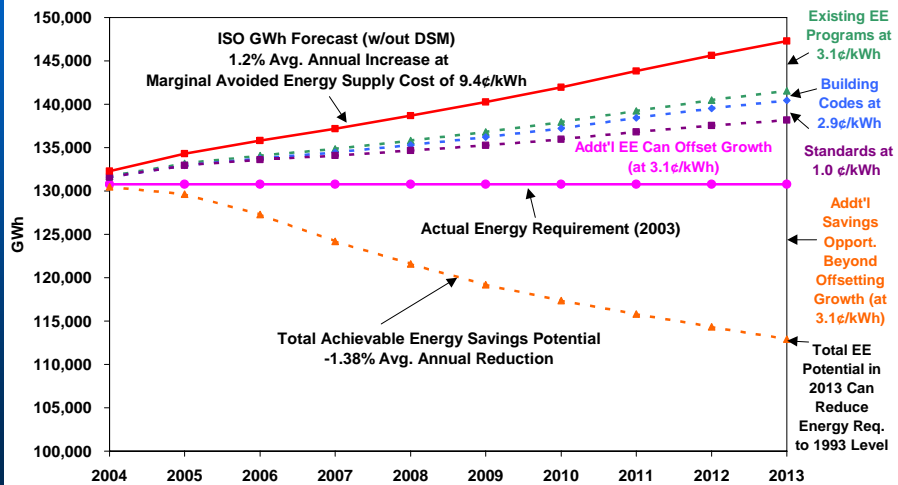
\$220 million 1997  
\$350 million 2004  
*New England, NJ only*

# New Interest in Energy Efficiency



## New England Achievable Efficiency Potential

### Existing and New EE Strategies Can Offset ISO Forecasted Energy Requirements (GWh) and Beyond



## Recent Regional Policy Developments

- **Regional Greenhouse Gas Initiative (RGGI)**
  - Develop model “cap and trade” rule for carbon emissions
  - 25% allocation of carbon credits for efficiency proposed
- **State Appliance Efficiency Standards**
  - Model legislation for 7-10 products adopted by 5 states
    - Maryland
    - Connecticut
    - New Jersey
    - New York
    - Rhode Island
    - *Pending in Massachusetts*

## Recent Regional Policy Developments

- **ISO-New England Report on Resource Adequacy Needs:**
  - Connecticut needs additional resources now
  - Connecticut and Boston need quick-start generation now
  - Region needs new resources between 2008 and 2010
  - Need market-based, long-term, resource adequacy solution
- **ISO-New England Responses:**
  - Emergency “gap” RFP in SW Connecticut included efficiency
  - ISO demand response program
  - Locational Installed Capacity Payment (LICAP)
  - Inclusion of efficiency as a sector in NEPOOL membership
- **New England States Committee on Electricity (NESCOE)**
  - Proposal to establish Governors' forum to respond to ISO market rules and tariff changes – *pending FERC approval*
  - First priority: Policy recommendations for resource adequacy and system plans

## State Policy Developments

**Connecticut Legislature:** Spring 2005

### *Energy Independence Act*

- Specific, quantifiable **conservation and load management targets**
- **Portfolio standard** - 1% of supply from energy efficiency and CHP by 2007, 4% by 2010
- Directive to DPUC - open **decoupling docket**
- Gas utilities - submit to DPUC **gas conservation plan** with five-year forecasts

## State Policy Developments

**Pennsylvania Legislature:** November 2004

### *Alternative Energy Portfolio Standard*

- **Hybrid EEPS** – Efficiency as eligible resource
- **Two-tier resource goals** for electric utilities:
  - Tier 1 - 8% of utility energy from renewable resources
  - Tier II - 10% 'advanced energy resource' target:
    - Allows mix of resources including energy efficiency
    - Others include waste coal generation and hydro
  - **No minimum requirement for efficiency resources**

## State Policy Developments

### New Jersey - In development at BPU:

- Specific energy and demand goals to be set for overall Public Benefits Fund program
- Proposed efficiency target of 1,814 GWH over four-year period (2005-2008)
- Interest in energy efficiency portfolio standard
- Transition to state managed program administration

## State Policy Developments

### Vermont Legislature: July 2005 *Omnibus Energy Act*

- **Ratepayer Funded Energy Efficiency:**
  - Removes \$17.5 million cap on efficiency utility
  - Requires annual reviews of unrealized energy efficiency potential
  - Allows adjustment to realize '*all reasonably available, cost-effective energy efficiency savings*'
- **Transmission and Distribution Planning:**
  - Message to ISO and FERC:
    - T&D planning and funding address all available resources
    - Treat efficiency comparable to supply with deference to least cost solution.
  - VELCO to submit 10-year plans:
    - Identify need for T&D improvements *early*
    - *Allow time* to plan and implement cost-effective non-transmission options
    - *Identify parameters* for energy efficiency or other non-transmission strategies to address to resolve the reliability deficiencies

## Conclusions

- Efficiency is a mature resource in the Northeast.
- Increased efficiency is essential to meet economic and environmental goals in Northeast states.
- Current policy captures less than 20% of the cost-effective, achievable efficiency potential.
- Efficiency requires **policy leadership** to overcome barriers.

## Recommendations for Northeast States

- Set long-term goal: Offset growth with increased efficiency
- Adopt state efficiency plan with coordinated policies to achieve this goal:
  - Allocate carbon emission credits to efficiency
  - Establish efficiency portfolio standards to meet % of load
  - Maintain societal benefit funds for efficiency
  - Decouple utility profits from throughput
  - Require efficiency in T&D planning and cost-recovery
  - Require that ISO's include:
    - Energy efficiency in transmission planning
    - Include efficiency in resource solicitations
  - Adopt and support strong appliance efficiency standards
  - Maintain up-to-date building energy codes, achieve high level of compliance
  - Lead by example -state and local government facilities
- Establish a high level clean energy policy coordinator
- Coordinate efficiency and clean energy policies within the state and across the region

**Thank You!**

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