

Grid Modernization and Energy Efficiency



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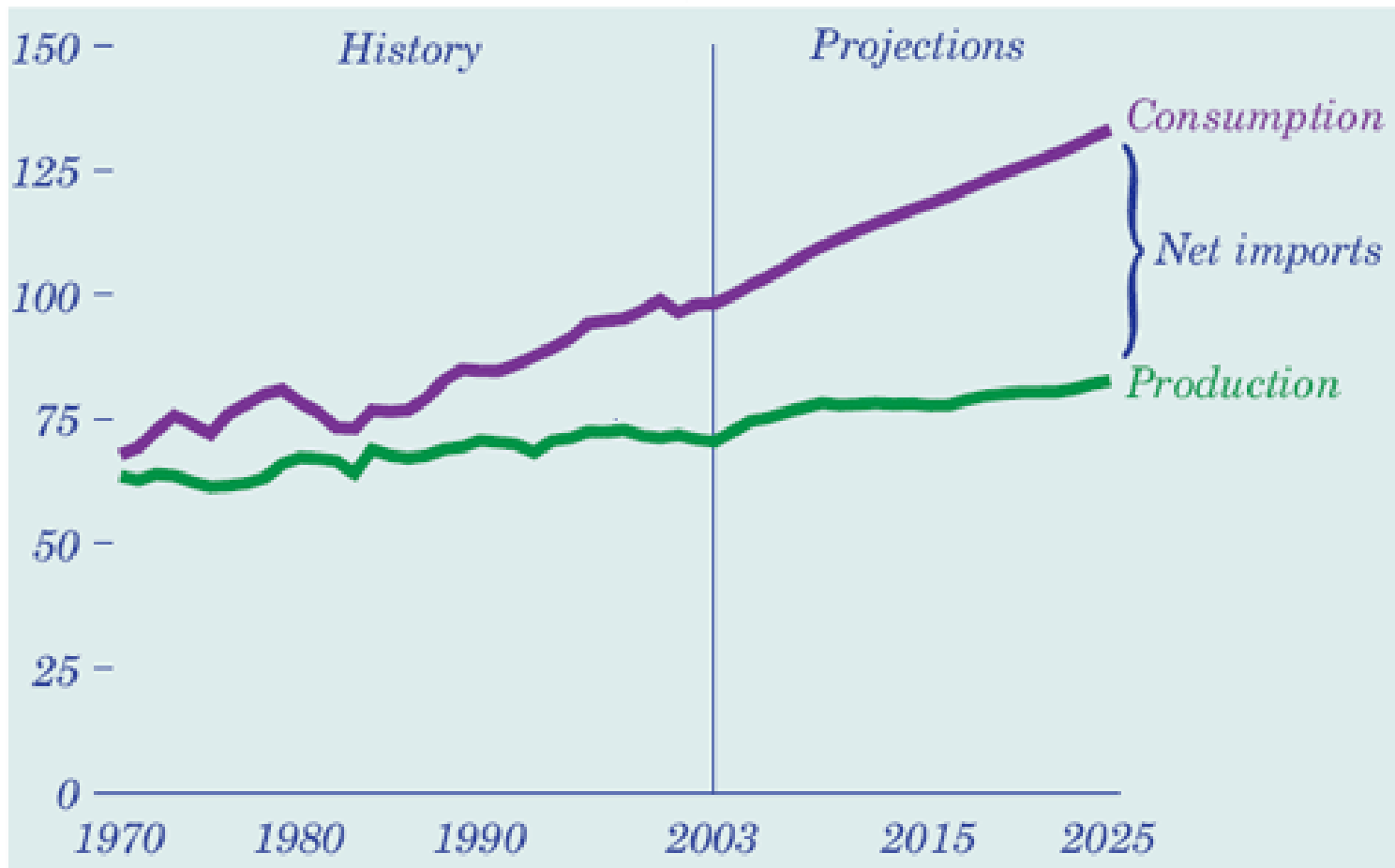
**ALLIANCE TO
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Creating an Energy-Efficient World

Growing Gap between Production Capacity and Demand for Energy



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Figure 6. Total energy production and consumption, 1970-2025 (quadrillion Btu)



Role of Efficiency in the “Smart Grid”



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- Focus on Deploying EE to Meet Three Principles of the Modern Grid Initiative:
 - Enabling Markets
 - Motivating and Including Consumers
 - Optimizing Assets

Enabling Markets/Involving Consumer – Government Efforts



- Building, Appliance and Equipment Standards
- Tax Incentives
- Research, Development & Demonstration
- Public Education and Awareness
- Federal Energy Management
- Funding Support (Rebates, Subsidies, Cost-Share)

Delivering Energy Efficiency Effectively Through Utilities



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- **Planning:** Use energy efficiency as a priority resource
- **Funding and Incentives:** Provide stable funding and appropriate incentives
- **Performance Requirements:** Adopt energy savings requirements or targets
- **Break Sales-Profit Link:** Decouple revenues from sales by fixing revenue rather than rates

Why Should Ratepayers Fund Energy Efficiency?



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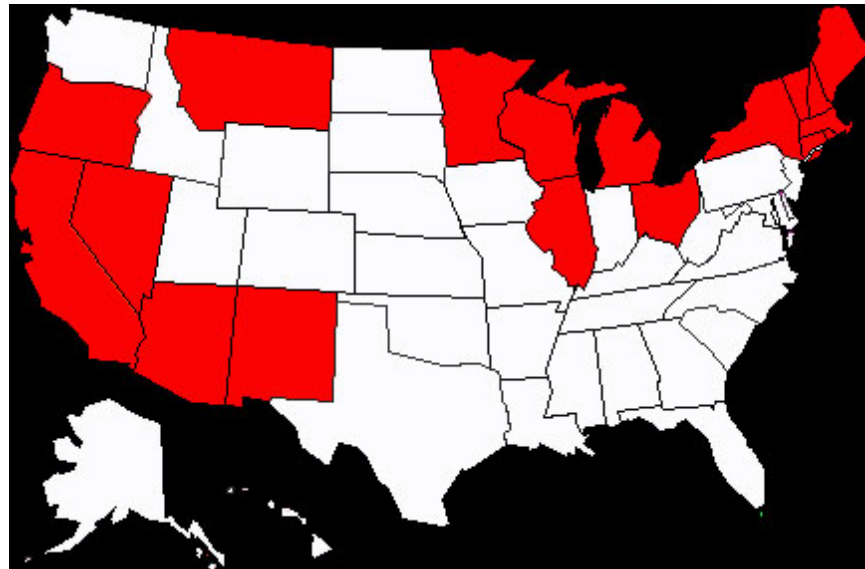
- Because it's cheaper, quicker, and cleaner than providing more energy
- Utility Demand-Side Management (DSM) avoided 24 GW of peak load in 2004—about 80 power plants
- Reported cost of about 2-4 cents per kWh saved

Funding Through Utilities: Public Benefits Charge



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- *Adopt/Create dedicated funding for energy efficiency*
 - Usually 0.01-0.3 cent/kWh surcharge on electric bills in restructured markets

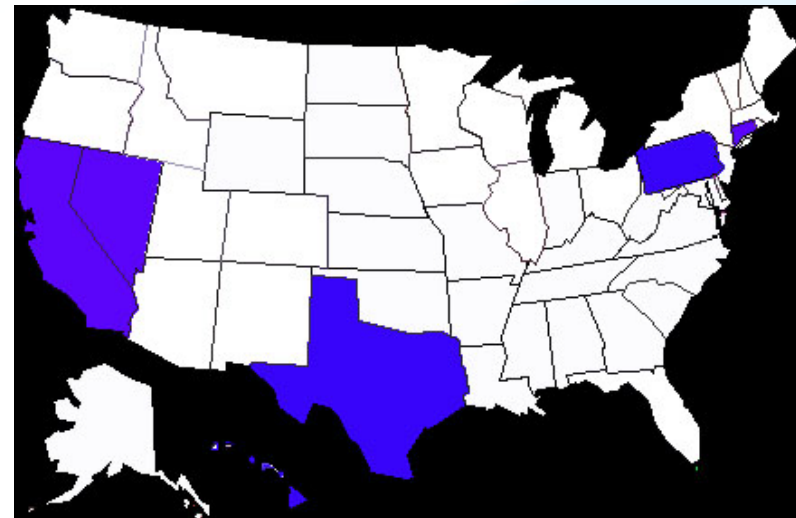




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Performance Standards

- *Adopt energy savings requirements for utility programs*
- Energy efficiency performance standard
- Clean energy portfolio standard
- Regulatory performance requirements

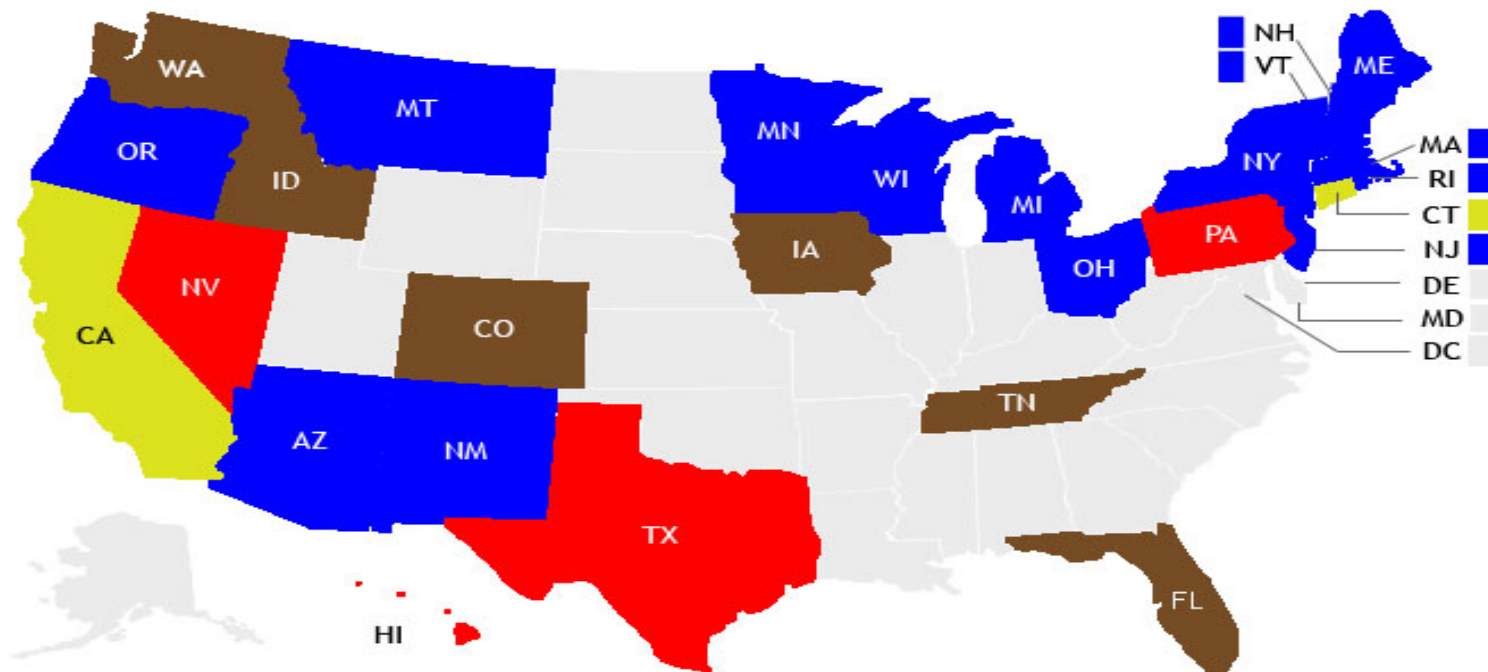


Challenge: Increasing Utility Investment in EE



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State Electricity Sector Energy-Efficiency Policies



● Performance Standards

● PBF and PS

● Public Benefit Fund (PBF)

● Other Significant EE Programs

Southeast Energy Efficiency Alliance (SEEA)



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The Southeast Energy Efficiency Alliance builds regional partnerships to promote and achieve energy efficiency for a cleaner environment, a more prosperous economy, and a higher quality of life.



- SEEA's role in the 11 state region:
 - Regional champion for energy efficiency
 - Modeled on other regional alliances (NEEP, MEEA, etc.)
 - Information clearinghouse
 - Education and programs (e.g. tax incentives workshop)

