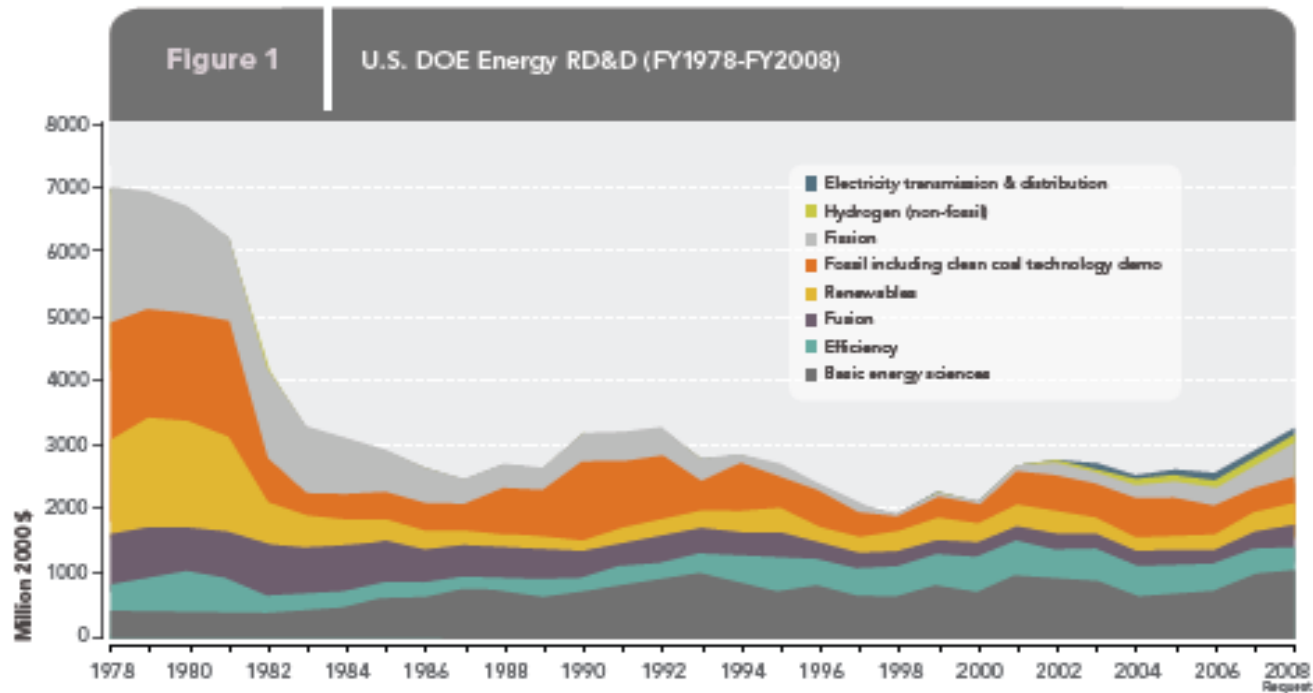


# 30 years of federal energy R&D



# Non-Technical Barriers Call for Supporting Policies to Promote Technology Deployment

Cost Effectiveness	Fiscal Barriers	Regulatory Barriers	Statutory Barriers	Intellectual Property Barriers	Other Barriers
High Costs	Unfavorable Fiscal	Unfavorable Regulations	Unfavorable Statutes	IP Transaction Costs	Incomplete and Imperfect Information
Technical Risks	Fiscal Uncertainty	Regulatory Uncertainty	Statutory Uncertainty	Anti-competitive Patent Practices	Infrastructure limitations
Market Risks	Unfavorable tariffs			Weak International Patent Protection	Industry Structure
External Benefits and Costs				University, Industry, Government Perceptions	Misplaced Incentives
Lack of Specialized Knowledge					Policy Uncertainty

**6 Barrier Categories**  
**21 Barriers**  
**~50 Detailed Barriers**

# Policy Process Underway to Address Remaining Barriers

Technology Areas	Tax Policy and Financial Incentives*	Legislative Acts and/or Regulation
Coal w/CCS	Loan Guarantees; Tax Incentives	CO2 Storage – Siting & Permitting; Monitoring; Liability
Nuclear Fission	Loan Guarantees; Tax Incentives	Waste and Fuel Management and Storage
Electric Grid and Infrastructure	Investor Incentives	Rate Structures; Transmission Corridors Renewables & Distributed Generation: Net Metering; Access Rights; Standard Interconnection Policies; Energy Storage Capacity
Transportation	Tax Credit; Manufacturing Credit; Consumer Incentives	National Regulatory Policies; Urban Planning; CAFE; Federal Fleet
Hydrogen	Loan Guarantees; Investor Incentives; Insurance	National Regulatory Policies; Safety, Codes & Standards
Bio-Based Fuels	Loan Guarantees; Production Tax Credit	Stable Subsidies; National Regulatory Policies; Biofuels Tariff; Federal Fleet
Wind Power	Loan Guarantees; Production Tax Credit	Stable Subsidies; Federal RPS; Construction Incentive; Minimum Purchase Price
Industry	Loan Guarantees; Efficiency Tax Credits; CHP Tax Credits; Sector Specific Tax Credits	Equipment Standards; Emissions Regulations; Informational Partnerships (e.g. MEPs)
Buildings	Manufacturer and Consumer Efficiency Tax Credits; Efficient Residential and Commercial Buildings Tax Credit (builders); CHP Tax Credits	Equipment Standards; Building Codes; Gov't Procurement;
Solar Power	Loan Guarantees; Investment & Manufacturing Tax Credit; Residential & Commercial Installation Tax Credit; Extended Production Tax Credit; Clean Renewable Energy Bonds	Federal RPS; Stable Subsidies; Federal Procurement of Solar Power; Ensure Availability of Public Lands (for concentrating solar power installations)
Other Renewables	Exploration Tax Credit; Extended Production Tax Credit: geothermal, ocean energy; Clean Renewable Energy Bonds	Federal RPS; Ensured Availability of Public Lands; Federal Procurement of Geothermal Power

Green: Existing Policies

# FY 2009 Budget – Good News for CCTP

## CCTP Budget History

