

The US EPA Climate Choice Pilot Program

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Overview

- What is it
 - New effort designed to identify technologies early in the technology adoption cycle
- Rationale
- Process/learning to date
- Pilot efforts
- Key Next Steps

EPA “Climate Choice”

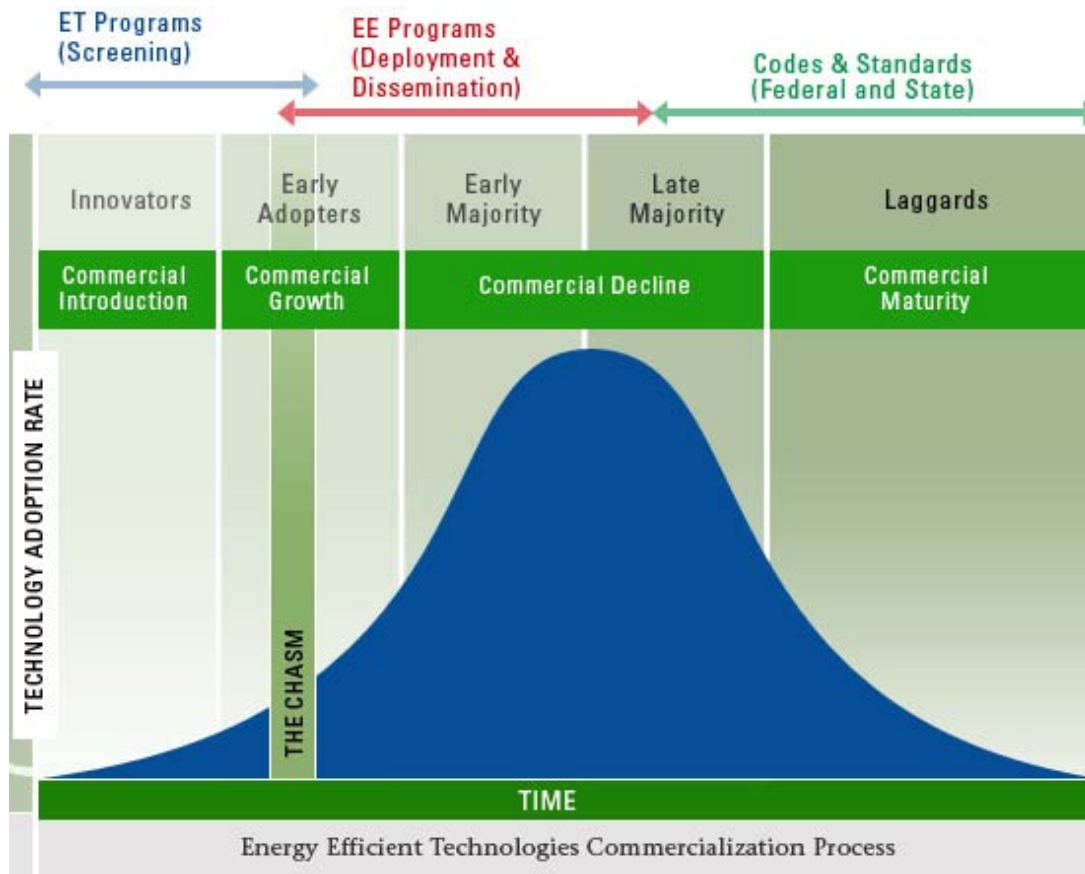
- New market-based recognition program
- Deploys emerging climate technologies faster
- Helps companies find “early adopter” or “environmentally-motivated” customers
- Helps consumers find technologies to proactively reduce greenhouse gas emissions

“Climate Choice” is under review

Climate Choice Benefits

- Recognition
 - Website
 - Trials & promotion
 - Program logo for “Climate Choice”
- Tailored technology assistance
 - Clearing unintended regulatory barriers
 - Identifying customers & partners
 - Providing opportunities for information sharing through existing CPPD networks
- ENERGY STAR candidate development

Climate Choice Bridges the Chasm



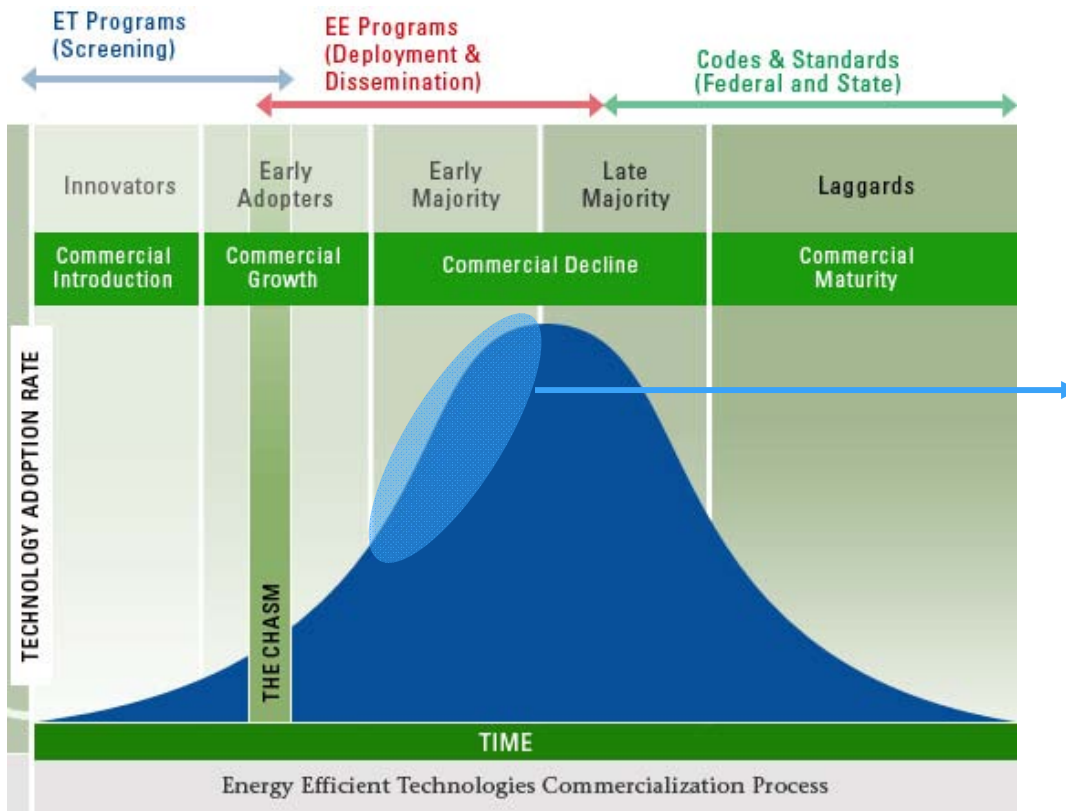
- Important different phases
- Different costs/risks and benefits
- Important different players
- Need different tools/policies/market interventions

Bridging the Chasm



- Over hyping not the solution
- Disillusionment follows the hype
- Working together to make technology relevant to today's buyers is the answer

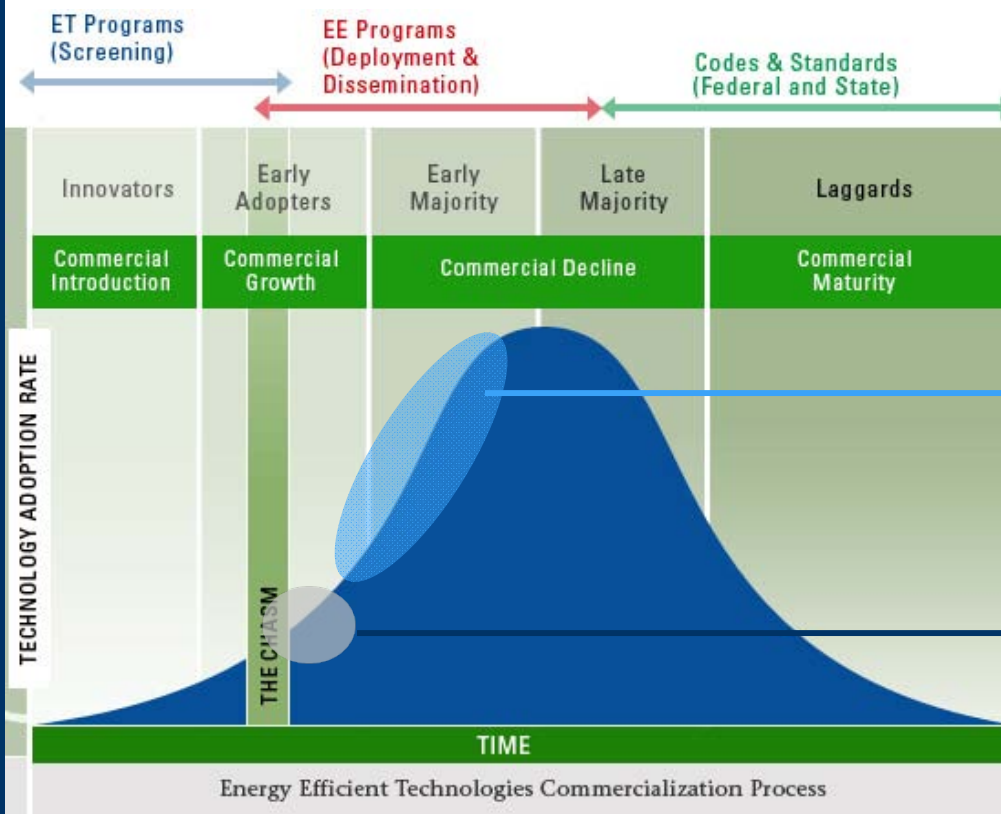
Role of ENERGY STAR



ENERGY STAR

- mass market consumer
- cost-effective (2 to 3 year payback)
- two-thirds of ENERGY STAR products have no incremental cost
- proven technology
- no sacrifice in performance
- reliable savings – easy design, installation, and maintenance

New Role of Climate Choice



ENERGY STAR

- mass market consumer
- cost-effective (2 to 3 year payback)
- proven technology
- no sacrifice in performance
- reliable savings – easy design, installation, and maintenance

Climate Choice

- new recognition program
- early adopters / environmentally conscious consumers
- longer payback
- more complex regional / installation / maintenance / performance issues

Developing a Family of Tools

Market Mechanism	Efficient	Cost-effective	Reliable Benefits
ENERGY STAR (no subsidies)	✓	2-3 yrs ✓	✓
ENERGY STAR with Save More Rebates (CEE Tier II)	✓ ✓	Not to typical consumer	✓
Climate Technology Initiative (Climate Choice)	✓ ✓ ✓ ✓ ✓	Not to typical consumer	Can address issues with additional information /targeted market segments
Tax Credits	✓ ✓ ✓	Not to typical consumer	Higher Risk
Technology-specific demos / tech assistance	✓ ✓ ✓	Not to typical consumer	Higher Risk

Stakeholder Participation & Consensus Under Climate Choice

- EPA experts and external stakeholders participate in program design and criteria selection
- Milestones Past in 2007
 - June: Scoping paper released
 - July-August: First public comments received
 - October: Climate Technology Initiative Conference
 - November: Consensus report released & initial criteria determined
 - November: Technical Forum on state emerging technology programs
 - November: Initial focus group testing

Scoping paper, presentation, and conference findings available online at: www.epa.gov/cleanenergy/climate/

Key Expert Advice

- Protect the ENERGY STAR
- Consider every technology stage
- Know the market
- Build on EPA core competencies
- Work with Partners
- Build a portfolio
- Pilot the initiative

Advice: Protect ENERGY STAR

- Vital to not degrade ENERGY STAR brand
- ENERGY STAR not necessarily the model for an Emerging Technology Initiative
- Efforts must be tailored to specific technology
- A unique recognition/brand program can be tailored to target markets

Advice:

Consider Every Technology Stage

- Stimulate test and product standards, benchmarks, case studies, life-cycle methodology, and infrastructure
- Test, certify, recognize, and witness performance; problem-solve sales and promote products
- Consider sustainable practices & integration
- Partner widely: DoD, utility & leadership companies
- Accelerate market penetration: Jump start and leap-frog startup, nationalize regionally-successful products, Globalize nationally-successful products

Advice: Understand the Market

- ENERGY STAR targets “mass market”
- Early adopters are more willing to accept risk and higher costs
 - more appropriate audience for an emerging technology program
 - 10-15% of the market
- Environmentally-motivated consumers empowered by purchasing decisions
- Clarity and credibility are essential

Advice:

Build on EPA Competencies

- Respected & credible environmental authority
- Businesslike green marketing/communicating
- ENERGY STAR reputation
- Master of partnerships and teams
- Environmental evaluation tools and services
- Responsible for any future regulations
- Capable in removing regulatory barriers
- Influential in government permitting & procurement

Advice:

Pilot the Emerging Technology Initiative

- Tailor selection criteria to the technology
- Favor technology with high GHG saving potential
- Partner to avoid duplication & speed success
- Match-make technology and customers
 - Financial, technical, and cultural compatibility
- Demand performance; depend on experts
- Demonstrate agility and flexibility
- Stimulate government procurement and corporate green markets

Pilot Program Elements

- Establish initial draft Criteria Done
- Launch website February
- Pilot short list of technologies/practices that meet criteria
– Select February
– Develop technology adoption plan |
– Recruit partners October
– Implement plan
- Refine criteria / application requirements
– Run open solicitation for technology nominations Fall 2008
– Select/convene experts to review
– Select set of technologies/practices
- Summarize initial results Fall 2008

Climate Choice Criteria

- Commercially available, but not widely adopted (< 5% market share)
- Offered by more than one supplier
- Demonstrated environmental performance; third party verified to agreed standards
- Likely to significantly reduce greenhouse gases at competitive costs
- Capable partners, adequately financed, established business record
- Challenges matched to EPA competencies and appropriate roles.

Criteria are elaborated in Climate Technology Conference Findings:
<http://www.epa.gov/cleanenergy/climate/>

Climate Choice Selection & Review

- Learning from the best
- Open application process
- Selection based on annual expert review
 - Sector-based expert panels nominate promising technologies
 - CPPD managers and external expert review panel score proposals

Contacts

- Expert committee recommendations:
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- Additional information:
<http://www.epa.gov/cleanenergy/climate/>

Back-up Slides

- Technology evaluation and implementation timeline
- Policy matrix
- Climate Technology Initiative key meeting findings

Technology Evaluation

- Technology Readiness (25%)
- Company Capability (20%)
- Environmental Benefits (35%)
- Third party testing and validation (20%)

Organizing timeline

January

- 28 – Solicit comments on technology selection proposal
- 28 – Solicit first nominations for expert committees
- 28 – Develop prototypes for Climate Choice website

February

- 29 – Issue draft technology adoption plan for pilot technologies
- 29 – Launch pilot Climate Choice site

March

- 17 – Finalize pilot technology adoption plans

Implementation Timeline

March-September

Implement pilot technology adoption plans

October

- Summarize & disseminate information on pilot results
- Determine if technologies are candidates for ENERGY
- Refine selecting and review process.
- Identify a first round of candidate technologies using refined screening criteria

Climate Technology Initiative Conference

October 10-11, 2007
Baltimore, Maryland



Key Meeting Findings

Motivated

- Concern for climate change
- National security, energy supply, & prosperity
- Economic savings from early action
 - No cost, low cost, and carbon cost-effective
- Green and carbon-conscious customers
 - Energized, educated, influential, trusting 3rd party authorities, loyal, willing and able to pay
- Companies/investors seeking green markets
 - Expecting high profits, facing daunting challenges

Confident

- Wealth of experience in promoting emerging technology—lessons of success and failure
- Pipeline of emerging technology that can significantly reduce ghg emissions
- Encouraged by green markets and green investment capital
- Identifying Emerging Technology Initiatives where EPA has competencies, customer trust, and “fit”

Advice: Build on EPA Core Competencies

- Respected & credible environmental authority
- Businesslike green marketing/communicating
- ENERGY STAR reputation
- Master of partnerships and teams
- Environmental evaluation tools and services
- Responsible for any future regulations
- Capable in removing regulatory barriers
- Influential in government permitting & procurement

Advice: Consider a “Portfolio Approach”

- Field scouts and networks identify technology
- Advocates assemble nomination package
 - “opportunity summary”
- Advisors screen and recommend
- EPA pursues technology fitting its capabilities
- Involving agency, utility, & NGO partners
- Acceptance with stakeholder agreement
- Technology validated & pursued to completion or handoff (to ENERGY STAR and elsewhere)

Advice: EPA Needs Partners

- EPA is not (much of):
 - A source of venture capital
 - An equity partner
 - A loan guarantee corporation
 - A substantial customer
- EPA is (not yet):
 - Technically capable in all technologies and sectors
 - Influential in all markets or with all customers

Advice: Pilot Selection Criteria

- Commercially available, but not widely adopted
- Demonstrated environmental performance
- Likely to significantly reduce ghg at competitive costs
- Capable partners, adequately financed
- Challenges matched to EPA competencies and appropriate roles