APPENDIX B:

Data Sheets for Existing Products

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* Final Rules for these products have been recently published

Summary of Priorities

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*Final Rules for these products have recently been published.

Test Procedures

* Final Rules for these products have been recently published

Standards

Product: Commercial Air-Cooled Central Air Conditioners and Air-Source Heat Pumps, 65-240 kBtu/h
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2005-2030	0.50[1] (to go beyond ASHRAE Standard 90.1-1999 levels)
Potential Economic Benefits/Burdens	0.4 (estimated NPV, billions of $1998)
Potential Environmental or Energy Security Benefits	Carbon emissions reduction – est. 7 million tons.
Status of Required Changes to Test Procedures	DOE plans to publish Final Rule to incorporate the test procedures referred to in ASHRAE Standard 90.1 into the CFR early in FY 2002. See page 8.
Other Regulatory Actions	Possible State and regional environmental regulation (e.g. air quality).
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Revised ASHRAE 90.1 standards approved June 1999, which would save an estimated 2.2 quads from 2005-2030. DOE will consider higher standards for additional energy savings.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	DOE initiated a rulemaking in FY 2002.
Rationale for Priority Level	Energy savings are significant.

[1] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Standards

Product: Central Air Conditioners and Heat Pumps, 3 phase, <65 kBtu/h
Priority: Medium

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2004 - 2030	SEER 13 standard level = 2.91[2] SEER 12 standard level = 2.17[2]
Potential Economic Benefits/Burdens	SEER 13 = (0.7) (NPV, billions of $1998) SEER 12 = 1.1 (NPV, billions of $1998)
Potential Environmental or Energy Security Benefits	Carbon emissions reduction: SEER 12 = 34 million tons, SEER 13 = 43 million tons
Status of Required Changes to Test Procedures	DOE plans to publish Final Rule to incorporate the test procedures referred to in ASHRAE Standard 90.1 into the CFR early in FY 2002. See page 8.
Other Regulatory Actions	Possible State and regional environmental regulation (e.g. air quality).
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Revised ASHRAE 90.1 standards approved June 1999. Efficiencies of these products were left unchanged. Single-phase products are regulated by NAECA, and it is desirable to have the same standards for single and three phase products. A DOE rulemaking is in progress for single phase products.
FY 2002 Priority	Medium

Proposed Schedule and Rationale

Proposed Schedule	DOE plans to initiate rulemaking for three phase equipment when rulemaking for residential (single phase) products is completed.
Rationale for Priority Level	Energy savings are significant.

[2] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Standards

Product: Clothes Dryers - (Gas/Electric)
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2008 - 2030	Heat Pump Elec. Dryer (5.5 EF) = 3.8 Microwave Elec. Dryer (3.5 EF) = 1.2 Modulating Gas Dryer (2.8 EF) = 0.06 Heat Pump Electric Dryer (5.2 EF) = 3.5
Potential Economic Benefits/Burdens	Not available
Potential Environmental or Energy Security Benefits	Not available
Status of Required Changes to Test Procedures	Reduced annual cycles needs to be considered, definitions and creation of new product class for condensing dryers.
Other Regulatory Actions	DOE regulation of clothes washers. DOE regulation of white goods for full line manufacturers.
Recommendations by Interested Parties	There appears to be a general consensus among stakeholders that updating clothes dryer standards should be given low priority.
Evidence of Market-Driven or Voluntary Efficiency Improvements	At least three U.S. manufacturers are marketing high efficiency clothes washers, which are likely to have improved moisture extraction.
Issues	Significant dryer savings potential has been considered in clothes washer rulemaking (greater moisture extraction). Mechanical extraction has been estimated to be much more cost effective than thermal extraction. New electric dryers advertise 30% reduction in energy usage.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next year. Work would be limited to basic technology investigation and monitoring of voluntary programs.
Rationale for Priority Level	Interested Parties believe this is a low priority product. Other DOE standards will impose cumulative burden on white goods manufacturers.

Test Procedure

Product: Clothes Dryers - (Gas/Electric)
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure needs to be changed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	CSA has conducted specialized dryer tests and has asked DOE to consider revisions to the test procedure.
Recommendation by Interested Parties	
Statutory Deadline	
Issues	A new product class needs to be defined for condenser dryers; currently there is one waiver in effect. Numerous changes that are required prior to a standards rulemaking for clothes dryers, including the investigation of the same test cloth issues as for the clothes washer rulemaking.

Proposed Schedule and Rationale:

Proposed Schedule	
Rationale for Priority Level	Considered to be a low priority by stakeholders.

Standards

Product: Clothes Washers
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2004-2030	Total range considered: [0.28 - 7.70][4] Specific examples below: **Efficiency Improvement Over the Base Case** / **MEF** / **Range of Energy Savings** 5% / 0.860 / 0.28 - 0.28 10% / 0.908 / 0.93 - 0.94 15% / 0.961 / 1.74 - 1.76 20% / 1.021 / 2.13 - 2.15 25% / 1.089 / 4.06 - 4.08 35% / 1.257 / 5.94 - 6.09 40% / 1.362 / 5.98 - 6.13 45% / 1.485 / 6.98 - 7.28 50% / 1.634 / 7.36 - 7.70 The Final Rule energy savings equals 5.5 quads over 2004-2030. Required MEF of 1.04 in 2004 and 1.26 in 2007.
Potential Economic Benefits/Burdens	The Net Present Value (NPV) is $15.3 billion cumulative from 2004 to 2030 in 1997 dollars.
Potential Environmental or Energy Security Benefits	For period 2004- 2030, 95 million metric tons of carbon and 254 thousand metric tons of NO_x.
Status of Required Changes to Test Procedures	Final Rule issued January 12, 2001. Changes to the test procedure were incorporated into the standards rulemaking.
Other Regulatory Actions	DOE regulation of clothes dryers. DOE regulation of white goods for full line manufacturers.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	Consortium for Energy Efficiency program with utilities. Energy Star program. Federal Energy Management Program for procurement initiative. At least three U.S. manufacturers are marketing high efficient clothes washers.
Issues	
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	ANOPR - Published November, 1998 NOPR - July, 2000 Final Rule - January, 2001
Rationale for Priority Level	Final Rule published January 12, 2001. Reviewed April 12, 2001.

[4] Based on DOE Technical Support Document, January 2001.

Test Procedure

Product: Clothes Washers
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure was changed as part of the standards rulemaking.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Published as part of standards rulemaking. NOPR - July, 2000. Final Rule January, 2001.
Rationale for Priority Level	Test procedure was revised recently to implement the standards rulemaking.

Standards

Product: Commercial Air Conditioners & Heat Pumps (All products for which DOE proposes to accept ASHRAE 90.1-1999 levels)
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2005-2030	0.6[5] (ASHRAE Standard 90.1-1999)
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Specific estimates of emission reductions have not been developed however, energy savings indicated above are indicative of the comparative emission benefits that are likely to be possible. Expected oil savings are minimal.
Status of Required Changes to Test Procedures	DOE plans to publish Final Rules to incorporate the test procedures referred to in ASHRAE Standard 90.1 into the CFR early in FY 2002.
Other Regulatory Actions	EPA phase out of HCFC refrigerants.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Revised ASHRAE 90.1 standards approved June, 1999.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	Notice of Availability 5/00. Final Rule published January 12, 2001.
Rationale for Priority Level	Standards set by EPACT were amended to adopt revised ASHRAE 90.1. No further action.

[5] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Test Procedure

Product: Commercial Air Conditioners & Heat Pumps (DOE accepts ASHRAE 90.1-1999 test procedures for all commercial air conditioner and heat pump products.)
Priority: High

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Standards set by EPACT have been amended upon revision of ASHRAE 90.1 as of January 12, 2001.
Priority of Standard	Low for most products.
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	NOPR – June, 2000
Rationale for Priority Level	Final Rule should be published in FY2003

Standards

Product: Commercial Furnaces
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2005-2030	0.5[6] (ASHRAE Standard 90.1-1999)
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Specific estimates of emission reductions have not been developed however, estimated energy savings indicated above are indicative of the comparative emission benefits that are likely to be possible. Expected oil savings are minimal.
Status of Required Changes to Test Procedures	DOE plans to publish Final Rule to incorporate the test procedures referred to in ASHRAE Standard 90.1 into the CFR early in FY 2002.
Other Regulatory Actions	Possible State and regional environmental regulation (e.g. air quality).
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Revised ASHRAE 90.1 standards approved June, 1999.
FY 2002Priority	High

Proposed Schedule and Rationale

Proposed Schedule	Notice of Availability May, 2000. Final Rule published January 12, 2001.
Rationale for Priority Level	Standards set by EPACT were amended to adopt revised ASHRAE 90.1. No further action.

[6] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Standards

Product: Commercial Oil and Gas-Fired Packaged Boilers
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2004-2030	0.28[7] (to go beyond ASHRAE Standard 90.1-1999 levels)
Potential Economic Benefits/Burdens	0.2 (NPV, billions of $1998)
Potential Environmental or Energy Security Benefits	Carbon emissions reduction – 4 million tons.
Status of Required Changes to Test Procedures	DOE plans to publish Final Rule to incorporate the test procedures referred to in ASHRAE Standard 90.1 into the CFR early in FY 2002.
Other Regulatory Actions	Possible State and regional environmental regulation (e.g. air quality).
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Revised ASHRAE 90.1 standards approved June 1999, which would save an estimated 0.06 quads from 2001-2030. DOE will consider higher standards for additional energy savings.
FY 2002Priority	N/A

Proposed Schedule and Rationale

Proposed Schedule	DOE plans to initiate work in support of rulemaking in FY 2003.
Rationale for Priority Level	Energy savings are significant.

[7] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Test Procedure

Product: Commercial Oil and Gas-Fired Packaged Boilers
Priority: High

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Standards set by EPACT are being amended upon revision of ASHRAE 90.1
Priority of Standard	High
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	NOPR – August, 2000
Rationale for Priority Level	Final rule should be published in FY2003.

Test Procedure

Product: Commercial Furnaces
Priority: High

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Standards set by EPACT have been amended upon revision of ASHRAE 90.1 as of January 12, 2001.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	NOPR – December, 1999
Rationale for Priority Level	Final rule should be published in FY2003

Standards

Product: Commercial Water Heaters
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2005-2030	0.07[8]
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Specific estimates of emission reductions have not been developed however, estimated energy savings indicated above are indicative of the comparative emission benefits that are likely to be possible. Expected oil savings are minimal.
Status of Required Changes to Test Procedures	DOE plans to publish the Final Rule to incorporate the test procedures referred to in ASHRAE Standard 90.1 into the CFR early in FY 2002.
Other Regulatory Actions	
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Revised ASHRAE 90.1 standards approved June 1999.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	Notice of Availability May, 2000. Final Rule January, 2001.
Rationale for Priority Level	Standards set by EPACT have been amended to adopt revised ASHRAE 90.1-1999 levels for gas- and oil-fired storage water heaters

[8] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Test Procedure

Product: Commercial Water Heaters
Priority: High

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Standards set by EPACT have been amended upon revision of ASHRAE 90.1 as of January 12, 2001
Priority of Standard	Low
International or Other Coordinating Activities	ASHRAE is in process of revising (SPC 118.1). Will include heat pump water heaters.
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	NOPR – June, 2000
Rationale for Priority Level	Final rule should be published in FY2003

Standards

Product: Cooking Products - Gas & Electric Ovens, Cooktops, and Microwave Ovens
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 1999 - 2030	Total ranges considered (Gas only): [9] Ovens: [0.2 - 0.4] Cooktops: [0.1 - 0.2]
Potential Economic Benefits/Burdens	Total ranges considered (Gas only): [9] Ovens: [(1.4) - 0.2] Cooktops: [(0.9) - 0.1] Cumulative Net Present Value, 1999-2030, billions 1990$ @ 7% discount rate
Potential Environmental or Energy Security Benefits	Total ranges considered (Gas and Electric not including Microwave): [9] Ovens: NOx [11 - 239]; CO_2 [6 - 133] Cooktops: NOx [0 - 65]; CO_2 [0 - 36] Cumulative emission reductions, 1999-2030, in (kt) for NOx, and (Mt) for CO_2.
Status of Required Changes to Test Procedures	
Other Regulatory Actions	DOE regulation of white goods for full line manufacturers.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Pilotless designs may require installation of an electrical outlet. Loss of consumer utility if loss of electrical power. If a loss of electricity, cannot use oven.
FY 2002 Priority	High (Gas); Low (Electric)

Proposed Schedule and Rationale

Proposed Schedule	Final Rule, no new standards for electric cooking products including microwave ovens, issued - September 8, 1998 Final Rule gas cooking products - To Be Determined.
Rationale for Priority Level	Potential energy savings are low to moderate. Analysis too old to use - requires new analysis for rulemaking.

[9] Based on Draft Report, April 1996 and Supplemental Analysis, November 1997.

Test Procedure

Product: Cooking Products - Gas & Electric Ovens, Cooktops, and Microwave Ovens
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure needed to be changed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final Rule issued - October 3, 1997
Rationale for Priority Level	

Standards

Product: Direct Heating Equipment (Gas)
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 1998-2030	Total range considered: [0 - 0.1][9] Specific examples below:[10]
Potential Economic Benefits/Burdens	[(1.4) - 0.1] NPV, Billions of 1990$ @ 7% 0 0.1 (0.6) (1.4)
Potential Environmental or Energy Security Benefits	SO_2 0 (7) (140) (320) NOx 0 (6) (132) (301) CO_2 0 (3) (72) (165) Emission reductions in (kt) for SO_2 and NOx, and (Mt) for CO_2.
Status of Required Changes to Test Procedures	Final rule published 5/12/97.
Other Regulatory Actions	None known that will impact product.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Fuel switching. Rural communities use for backup heating during power outages. Utility concern with electronic ignition.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next year. Work would be limited to basic technology investigation and monitoring of voluntary programs.
Rationale for Priority Level	Interested parties believe this is a low priority product. Potential energy savings are low.

[9] Based on DOE preliminary analysis, June 1995.

[10] Examples shown for design options and AFUE are for gravity wall heaters (27 - 46 kBtu/hr).

Test Procedure

Product: Direct Heating Equipment (Gas)
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure not needed to be changed for standard
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final Rule issued May 12, 1997.
Rationale for Priority Level	

Standards

Product: Dishwashers
Priority: Medium

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2008 - 2030	Best Available (as listed in Energy Star) (1.05 EF) = 1.4 Soil Sensor = 0.9 Current Energy Star Dishwasher (0.58 EF) = 0.4
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Not available.
Status of Required Changes to Test Procedures	Test procedure is being revised to better reflect energy consumption for new technologies (e.g. adaptive controls) and reduced annual cycles.
Other Regulatory Actions	DOE regulation for energy efficiency of other white goods for full line manufacturers.
Recommendations by Interested Parties	Some manufacturers believe that updating the dishwasher standard should be given a low priority.
Evidence of Market-Driven or Voluntary Efficiency Improvements	Energy Savers program. Federal Energy Management Program for procurement initiative. At least two U.S. manufacturers are marketing adaptive control dishwashers. ENERGY STAR program.
Issues	Increased efficiency may impact product utility (e.g. may require pre-rinsing of dishes or cleaning of filters) or the availability of affordable models (contract housing). Possible increase in standby energy consumption from displays.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next year. Work would be limited to basic technology investigation and monitoring of voluntary programs.
Rationale for Priority Level	Estimated potential energy savings of the ENERGY STAR level are low; the "Best Available" level is not appropriate for rulemaking.

Test Procedure

Product: Dishwashers
Priority: High

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure needed to be changed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	Efforts underway to harmonize international test procedures should include dishwashers.
Recommendation by Interested Parties	Manufacturers support a test procedure revision for more accurate testing of new adaptive control models. Industry working on revising its test procedure suggestions to encompass the variety of sensor techniques now in the market.
Statutory Deadline	
Issues	New technology in product, i.e. smart controls, fuzzy logic.

Proposed Schedule and Rationale:

Proposed Schedule	NOPR – published September, 1999 Reopening Notice – July, 2000 Final Rule –Second half of 2002
Rationale for Priority Level	New technology in product, i.e. smart controls, fuzzy logic (e.g., dirt sensors).

Standards

Product: Distribution Transformers
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 1995-2030	[0.39-10.7][12]
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Specific estimates of emission reductions have not been developed however, estimated energy savings indicated above are indicative of the comparative emission benefits that are likely to be possible. Expected oil savings are minimal.
Status of Required Changes to Test Procedures	Need to publish a test procedure before rule.
Other Regulatory Actions	None known.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	EPA Energy Star program for liquid immersion transformers. NEMA is TP-1 promotes energy efficient electrical products.
Issues	NEMA recommends adoption of voluntary standards as specified in TP-1. Potential energy savings from regulatory action questioned by NEMA.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	ANOPR - 3/03 NOPR – 03/04 Final Rule 9/04.
Rationale for Priority Level	Potential for significant energy savings through regulatory action under EPCA, as amended by EPAct.

[12] Based on DOE determination notice, October 22, 1997.

Test Procedure

Product: Distribution Transformers
Priority: High

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure needs to be established for standard.
Priority of Standard	High
International or Other Coordinating Activities	
Recommendation by Interested Parties	NEMA recommends using NEMA TP-2 test standard.
Statutory Deadline	
Issues	Sampling Plan; Definitions of Covered Products, Basic Mode Definition.

Proposed Schedule and Rationale:

Proposed Schedule	NOPR – published November 12, 1998 Reopening Notice – June, 1999 SNOPR – 4/03 Final Rule 10/03
Rationale for Priority Level	Test procedure needs to established for Standard rulemaking in FY 2003.

Standards

Product: Electric Motors, 1 - 200 HP
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads)	Estimated 31.3 billion kWh/yr (0.106Quad/yr) could be saved through enforcement of EPCA standards that became effective 1997. Certification program to take effect in early 2003.
Potential Economic Benefits/Burdens	Not Available.
Potential Environmental or Energy Security Benefits	Not Available.
Status of Required Changes to Test Procedures	Final rule for test procedures published October 5, 1999.
Other Regulatory Actions	None known that will impact product.
Recommendations by Interested Parties	Enforcement
Evidence of Market-Driven or Voluntary Efficiency Improvements	ASHRAE 90.1. Consortium for Energy Efficiency program with utilities. Motor Challenge. Motor Master+. NEMA Premium efficient motors programs.
Issues	DOE regulates system efficiencies (e.g. HVAC) where motors are components of such systems.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next two years. Work would be limited to basic technology investigation and monitoring of voluntary programs.
Rationale for Priority Level	Interested Parties believe this is a low priority product. Potential energy savings are unknown at this time. Determination required by EPCA

Test Procedure

Product: Electric Motors, 1 - 200 HP
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure needed to be revised to support the standard
Priority of Standard	Low
International or Other Coordinating Activities	Natural Resources Canada: Energy Efficiency Regulations for Electric Motors International Electro technical Commission/International Standards Organization (IEC/ISO)
Recommendation by Interested Parties	Manufacturers and energy efficiency advocates support test procedure rulemaking.
Statutory Deadline	
Issues	Expect DOE test procedure to be revised for compatibility with global (IEC/ISO) test procedure.

Proposed Schedule and Rationale:

Proposed Schedule	Proposed Rule Issued – November 27, 1997 Final Rule – October 5, 1999
Rationale for Priority Level	Final Rule recently published .

Standards

Product: Fluorescent Lamp Ballasts
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2005-2030	1.2 – 2.3
Potential Economic Benefits/Burdens	1.4 – 2.6 NPV, billions of 1997$ @ 7%
Potential Environmental or Energy Security Benefits	
Status of Required Changes to Test Procedures	None required.
Other Regulatory Actions	In Canada, Natural Resources Canada has proposed to adopt similar ballast standards with an effective date in 2005 (for both new and replacement ballasts).
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	EPA Green Lights and Energy Star Buildings, ASHRAE 90.1, DOE's FEMP Procurement Guidelines and Federal Relighting Initiative, EPAct 1992 Voluntary Luminaire Testing and Rating Program, The Energy Cost Savings Council, and some utility DSM programs.
Issues	
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	Final Rule –published in September, 2000
Rationale for Priority Level	Final Rule published in FY2000.

Test Procedure

Product: Fluorescent Lamp Ballasts
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Efficiency levels for new standards are already in the market and are covered by existing standards and test procedures.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	
Rationale for Priority Level	

Standards Determination

Product: High Intensity Discharge (HID) Lamps
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 1995-2030	1.4
Potential Economic Benefits/Burdens	Not Available.
Potential Environmental or Energy Security Benefits	Specific estimates of emission reductions have not been developed
Status of Required Changes to Test Procedures	IES and ANSI procedures are in place. Issues with definitions, covered products and sampling.
Other Regulatory Actions	EPA mercury disposal requirements apply.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	Market-driven replacement of inefficient mercury vapor lamps with metal halide and high-pressure sodium lamps has occurred but the Department does not expect this trend to continue into the future.
Issues	
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE plans to move this activity to a high priority.
Rationale for Priority Level	Determination required by EPACT.

Test Procedure

Product: High Intensity Discharge (HID) Lamp
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure needs to be developed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	No work expected during FY2003.
Rationale for Priority Level	

Standards

Product: Lamps, Fluorescent
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2008 - 2030	*Best Available* FEMP procurement recommendation levels (4-foot, 8-foot, and U-tube lamps) = 0.47 *Recommended* FEMP procurement recommendation levels (4-foot, 8-foot, and U-tube lamps) = 0.14
Potential Economic Benefits/Burdens	Not Available.
Potential Environmental or Energy Security Benefits	Not Available.
Status of Required Changes to Test Procedures	IES and ANSI procedures are in place, DOE test procedure Final Rule issued May 29, 1997.
Other Regulatory Actions	Existing EPA mercury disposal requirements apply, but EPA issued a final rule July 6, 1999, including lamps as Universal Hazardous Waste.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	EPA Green Lights/Energy Star Buildings, ASHRAE 90.1, FEMP Procurement Guidelines and Federal Relighting Initiative, and some utility DSM programs.
Issues	Because lamps are components of systems, establishment of standards is more difficult.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next year.
Rationale for Priority Level	Low energy savings potential.

Test Procedure

Product: Lamps, Fluorescent
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure changes not needed for standard
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final Rule issued May 29, 1997
Rationale for Priority Level	

Standards

Product: Lamps, Incandescent General Service
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2008 - 2030	17% efficacy increase (halogen lamp)= 8.52 3% efficacy increase = 1.57 1.5% efficacy increase = 0.80
Potential Economic Benefits/Burdens	Not Available.
Potential Environmental or Energy Security Benefits	Not Available.
Status of Required Changes to Test Procedures	IES and ANSI procedures are in place, DOE test procedure Final Rule issued May 29, 1997.
Other Regulatory Actions	
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	EPA Green Lights/Energy Star Buildings, ASHRAE 90.1, FEMP Federal Relighting Initiative, and some utility DSM programs, Voluntary Luminaire Testing and Rating Program.
Issues	Because lamps are components of systems, establishment of standards is more difficult.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next year
Rationale for Priority Level	Low priority because the more efficient technologies do not appear to be economically viable for this very mature technology.

Test Procedure

Product: Lamps, Incandescent General Service
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure changes not needed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final Rule issued May 29, 1997
Rationale for Priority Level	

Standards

Product: Lamps, Incandescent Reflector
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2008 - 2030	Currently Regulated 30% efficacy increase (HIR) = 1.44 3% efficacy increase = 0.18 1.5% efficacy increase = 0.09 Currently Unregulated 54% efficacy increase (HIR) = 2.26 18% efficacy increase (H) = 1.0 1.5% efficacy increase = 0.1 Note: Halogen (H); Halogen Infrared Reflector (HIR)
Potential Economic Benefits/Burdens	Not Available.
Potential Environmental or Energy Security Benefits	Not Available.
Status of Required Changes to Test Procedures	IES and ANSI procedures are in place, DOE test procedure Final Rule issued May 29, 1997.
Other Regulatory Actions	
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	EPA Green Lights/Energy Star Buildings, ASHRAE 90.1, FEMP Federal Relighting Initiative, and some utility DSM programs, Voluntary Luminaire Testing and Rating Program.
Issues	Because lamps are components of systems, establishment of standards is more difficult.
FY 2001 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE plans to assess whether to classify currently exempt incandescent reflector lamps as covered products.
Rationale for Priority Level	Based on completion of assessment.

Test Procedure

Product: Lamps, Incandescent Reflector
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure changes not needed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final Rule issued May 29, 1997
Rationale for Priority Level	

Standards

Product: Packaged Terminal Air Conditioners and Heat Pumps
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2004 - 2030	0.56[17] (to go beyond ASHRAE Standard 90.1-1999 **replacement** equip. levels) 0.03[17] (to go beyond ASHRAE Standard 90.1-1999 **new construction** equip. levels)
Potential Economic Benefits/Burdens	0.6 above **replacement** equip. levels (NPV, billions of $1998) .01 above **new construction** equip. levels (NPV, billions of $1998)
Potential Environmental or Energy Security Benefits	Carbon emissions reduction = 8 million tons (above **replacement** equip. levels), 1 million tons (above **new construction** equip. levels)
Status of Required Changes to Test Procedures	DOE plans to publish Final Rules to incorporate the test procedures referred to in ASHRAE Standard 90.1 into the CFR by September 2001.
Other Regulatory Actions	EPA phase out of HCFC refrigerants.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	Revised ASHRAE 90.1 standards approved 6/99, which would save an estimated 0.11 quads from 2001-2030. DOE will consider higher standards for additional energy savings.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	DOE plans to initiate rulemaking in FY2003.
Rationale for Priority Level	Energy savings are significant.

[17] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Standards

Product: Plumbing Fixtures/Fittings
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads)	The Department has not conducted any recent analysis regarding potential energy savings for this product.
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Not available.
Status of Required Changes to Test Procedures	
Other Regulatory Actions	None.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	As flow rates and water consumption decline the effects on utility need to be carefully considered.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next year. Work would be limited to basic technology investigation and monitoring of voluntary programs.
Rationale for Priority Level	Dependent upon revision by ASME and approval by ANSI to ASME/ANSI A112.18.1 and ASME/ANSI A112.19.6.

Test Procedure

Product: Plumbing Fixtures/Fittings
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final Rule - March 18, 1998
Rationale for Priority Level	

Standards

Product: Pool Heaters (Gas)
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2000-2030	Total range considered: [0.2 - 0.9][18] Specific examples below: IID, (78% E_T) 0.2; Non-condensing limit, (82.2% E_T) 0.4; Condensing, (90.8% E_T) 0.7
Potential Economic Benefits/Burdens	Total range: [(1.4) - 0.2][16] Cumulative Net Present Value, Billions 1990$ @ 7% IID, (78% E_T) 0.2; Non-condensing limit, (82.2% E_T) 0.2; Condensing, (90.8% E_T) (0.6)
Potential Environmental or Energy Security Benefits	IID, (78% E_T) / Non-cond. limit, (82.2% E_T) / Condensing, (90.8% E_T) NOx: 42 / 42 / 42 CO_2: 11 / 18 / 35 Cumulative Emission reductions in (kt) for SO_2 and NOx, and (Mt) for CO_2
Status of Required Changes to Test Procedures	Final rule issued 5/12/97.
Other Regulatory Actions	None known that will impact product.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	DOE does not plan to actively pursue rulemaking in the next year. Work would be limited to basic technology investigation and monitoring of voluntary programs.
Rationale for Priority Level	Interested Parties believe this is a low priority product. Potential energy savings are low.

[18] Based on DOE preliminary analysis, June 1995.

Test Procedure

Product: Pool Heaters (Gas)
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure not needed to be changed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final rule issued May 12, 1997.
Rationale for Priority Level	

Standards

Product: Refrigerators, Refrigerator/Freezers, & Freezers
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 1998-2030	Energy Star (~10% more efficient) = 1.40[19]
Potential Economic Benefits/Burdens	Not available
Potential Environmental or Energy Security Benefits	Not available
Status of Required Changes to Test Procedures	No changes required for standards**.**
Other Regulatory Actions	EPA phase out of insulation HCFCs in 2003. DOE regulation of white goods for full line manufacturers.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	Super Efficient Refrigerator Program (Golden Carrot). New York Housing Authority mass procurement. Energy Savers program. Significant quantities of new high efficiency models are being marketed.
Issues	Final Rule Issued - April 28, 1997.
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	Final Rule Issued - April 28, 1997
Rationale for Priority Level	Rule issued, effective July 1, 2001

[19] Based on LBNL rough estimate, September, 2001. No formal analysis has been conducted for Department since the Final Rule was issued in 1997.

Test Procedure

Product: Refrigerators, Refrigerator/Freezers, & Freezers
Priority: Medium for compact refrigerators and refrigerator/freezers, Low for all others.

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure not needed to be changed for standard.
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	Tests at NIST have revealed deficiencies in the compact refrigerator test procedure. These will be researched and corrected, probably by revising the test procedure for compact refrigerators.

Proposed Schedule and Rationale:

Proposed Schedule	NIST tested compact refrigerators, and proposed a modification of the compact refrigerator test procedure. A rulemaking to modify the test procedure will begin in 2002. A separate Direct Final Rule to make a small modification to the defrost calculations for some models will be completed in September 2002.
Rationale for Priority Level	Compact refrigerator manufacturers have obtained inconsistent results when testing each other's products. Deficiencies in test procedure have been identified.

Standards

Product: Residential Central Air Conditioners & Heat Pumps (Small Duct High Velocity)
Priority: High - drops to Low priority upon completion of Small Duct High Velocity (SDHV)

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2006 - 2030	N/A
Potential Economic Benefits/Burdens	
Potential Environmental or Energy Security Benefits	
Status of Required Changes to Test Procedures	SDHV test procedures will be conducted concurrently with the standards.
Other Regulatory Actions	
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	
Issues	Separate rulemaking being conducted SDHV.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	SANOPR – November, 1999 NOPR – October, 2000 Final Rule – January 22, 2001 Supplemental NOPR (Final Rule withdrawn) – July 25, 2001. Final Rule – May 23, 2002
Rationale for Priority Level	Separate class needed for SDHV.

Test Procedure

Product: Residential Central Air Conditioners & Heat Pumps (SDHV)
Priority: High

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure for SDHV will be changed concurrently with the standard rulemaking.
Priority of Standard	High
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	NOPR – published January, 2001 Final Rule to be issued in FY 2003. A separate rulemaking to change the minimum external static test pressure for small duct high velocity units and promulgate new cycle degradation defaults will begin in early FY 2003.
Rationale for Priority Level	Test procedure being conducted concurrent with standards.

Test Procedure

Product: Residential Central Air Conditioners & Heat Pumps – Ductless Split Systems
Priority: Medium

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure does not need to be changed for standard.
Priority of Standard	High
International or Other Coordinating Activities	
Recommendation by Interested Parties	Ductless split system manufacturers would prefer to use calorimeter test.
Statutory Deadline	
Issues	Calorimeter test (which is used for room air conditioners) is more suitable and accurate for testing ductless split central air conditioners, but this test is not currently in the DOE central air conditioning test procedure.

Proposed Schedule and Rationale:

Proposed Schedule	DOE plans to initiate work in support of rulemaking
Rationale for Priority Level	Change would make test procedure more accurate for this product.

Standards

Product: Residential Furnaces & Boilers
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2012 - 2042	Total range considered: [1.8 - 15.1][21] Specific examples below:
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Specific estimates of emission reductions have not been developed however, estimated energy savings indicated above are indicative of the comparative emission benefits that are likely to be possible. Expected oil savings are more significant than other products.
Status of Required Changes to Test Procedures	Final rule issued May 12, 1997.
Other Regulatory Actions	Possible State and regional environmental regulation. DOE regulation of central air conditioning/heat pump products.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	Energy Star program. Wisconsin state condensing furnace/boiler program. ACEEE indicated that trend for higher efficiency products stopped in 1994.
Issues	Venting and electricity issues.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	Rulemaking was initiated in 2001.
Rationale for Priority Level	Potential energy savings are significant. Higher standards levels requiring technologies such as condensing furnaces would impact utility to consumers.

[21] Based on LBNL rough estimate for gas only, September 2001.

Test Procedure

Product: Residential Furnaces & Boilers
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure not needed to be changed for standard. The test procedure for combined space- and water-heating appliances (a separate product class within the standards rulemaking) needs to be developed.
Priority of Standard	High
International or Other Coordinating Activities	ASHRAE SPC 124 has released for public review a test procedure for combined appliances.
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Final rule issued May 12, 1997.
Rationale for Priority Level	

Standards

Product: Residential Water Heaters - Gas, Oil & Electric
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2004-2030	Total ranges considered: 3.3 – 11.5[22] Specific examples below: The Final Rule energy savings equals 4.6 quads over 2004-2030.
Potential Economic Benefits/Burdens	The Net Present Value (NPV) is $2.0 billion cumulative from 2004 to 2030 in 1997 dollars.
Potential Environmental or Energy Security Benefits	For period 2004- 2030, 152 million metric tons of carbon and 273 thousand metric tons of NO_x.
Status of Required Changes to Test Procedures	Changes not required for standards. Final rule for test procedure was published in 1998.
Other Regulatory Actions	EPA phase out of HCFCs for insulation (2003). Consumer Product Safety Commission initiative for prevention of ignition of flammable vapors by gas water heaters.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	Demand-side management programs for high efficiency water heaters.
Issues	Fuel switching. Replacement blowing agent for insulation. Installation in small spaces.
FY 2002 Priority	High

Proposed Schedule and Rationale

Proposed Schedule	NOPR – April, 2000 Final Rule - January, 2001
Rationale for Priority Level	Final Rule published January 17, 2001. Reviewed April 12, 2001.

[22] Based on DOE Technical Support Document, January 2001.

Test Procedure

Product: Residential Water Heaters - Gas, Oil & Electric
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	No change needed
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	
Rationale for Priority Level	Test procedure published in May, 1998.

Standards

Product: Room Air Conditioners
Priority: Low

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2008 -2030	~7% more efficient than Energy Star (~10.8 EER) = 0.7[23] ~15% more efficient than Energy Star (~11.5 EER) = 1.2[23]
Potential Economic Benefits/Burdens	Not available
Potential Environmental or Energy Security Benefits	Not available
Status of Required Changes to Test Procedures	Not required for standards.
Other Regulatory Actions	EPA phase out of HCFC-22 refrigerant.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	DSM programs. Labeling program very effective.
Issues	Final Rule Issued - September 24, 1997
FY 2002 Priority	Low

Proposed Schedule and Rationale

Proposed Schedule	Final Rule Issued - September 24, 1997
Rationale for Priority Level	

[23] LBNL estimate, September, 2001. No formal analysis has been conducted for Department since the Final Rule was issued in 1997.

Test Procedure

Product: Room Air Conditioners
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	Test Procedure not needed to be changed for standard
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	There are no other existing or proposed test procedures specifically targeted at room air conditioners. The only possible alternative would be to develop a seasonal energy efficiency measure analogous to the SEER used for central air conditioners. It is uncertain how valuable such a seasonal standard would be in better predicting actual energy usage, as many people tend to use RACs as on-off devices.

Proposed Schedule and Rationale:

Proposed Schedule	
Rationale for Priority Level	

Standards

Product: Tankless Gas-Fired Instantaneous Water Heaters
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 2004-2030	0.10[24] (to go beyond ASHRAE Standard 90.1-1999 levels)
Potential Economic Benefits/Burdens	0.05 (NPV, billions of $1998)
Potential Environmental or Energy Security Benefits	Carbon emissions reduction = 2 million tons.
Status of Required Changes to Test Procedures	DOE plans to publish the Final Rule to incorporate the test procedures referred in ASHRAE Standard 90.1 into the CFR in 2003.
Other Regulatory Actions	
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	
FY 2002 Priority	Medium

Proposed Schedule and Rationale

Proposed Schedule	DOE plans to initiate work in support of rulemaking
Rationale for Priority Level	Re-evaluation of ASHRAE Standard 90.1 1999 levels.

[24] Based on Screening Analysis Report for Commercial HVAC Standards, see 65 FR 30929.

Standards Determination

Product: Small Electric Motors
Priority: High

Factors for Priority Setting	Assessment
Potential Energy Savings from Regulatory Action; Cumulative (Quads) 1998-2030	Cumulative net present value est. $.6 – 1 billion for certain single phase motors, cumulative net present value est. $.09 - .29 billion for certain poly phase motors. [0.6 – 1 for certain single phase motors][25] [0.15 - .2 for certain poly phase motors]
Potential Economic Benefits/Burdens	Not available.
Potential Environmental or Energy Security Benefits	Specific estimates of emission reductions have not been developed however, estimated energy savings indicated above are indicative of the comparative emission benefits that are likely to be possible. Expected oil savings are minimal.
Status of Required Changes to Test Procedures	IEEE 114 – 2001 test procedure for single-phase induction motors was published May 24, 2002. IEEE 112 – 1996 test procedure for poly phase motors is in effect.
Other Regulatory Actions	Small motors used in NAECA "covered products" (e.g. white goods) and certain commercial equipment are exempt.
Recommendations by Interested Parties	
Evidence of Market-Driven or Voluntary Efficiency Improvements	None known.
Issues	None.
FY 2002 Priority	Medium

Proposed Schedule and Rationale

Proposed Schedule	DOE plans to publish determination in FY2003.
Rationale for Priority Level	Determination required by EPCA.

[25] Based on draft DOE report, April 2002. Other estimates are in preparation and should be ready by the end of 2002.

Test Procedure

Product: Small Electric Motors
Priority: Low

Factors for Priority Setting	Assessment
Relationship to Changes in Standard	
Priority of Standard	Low
International or Other Coordinating Activities	
Recommendation by Interested Parties	
Statutory Deadline	
Issues	

Proposed Schedule and Rationale:

Proposed Schedule	Dependent upon Determination.
Rationale for Priority Level	