Category	Product	Effective Date of Original ES Specification	Effective Date of Current ES Specification	Specification Updates	ENERGY STAR Specification Levels Currently in Effect	Federal Standard in Effect/Plans for Future Standards
Appliances	Clothes Washers	1997	1/1/2007	New specification finalized in March 2008, effective 7/1/2009, with a second tier effective 1/1/2011.	Current specification: Modified Energy Factor (MEF) >= 1.72, Water Factor (WF) <= 8.0 Effective July 1, 2009: MEF >= 1.8, WF <= 7.5 Effective July 1, 2011: MEF >= 2.0, WF <= 6.0	Current standard: Top Loading, Compact: Modified Energy Factor (MEF) >=0.65; Top-Loading and Front-Loading, Standard: MEF >=1.26. Effective Jan 1, 2011 (EISA): Top-Loading and Front-Loading, Standard: MEF >=1.26 and a water factor of 9.5 or less.
	Dehumidifiers	2001	6/1/2008		Energy efficiency is measured in liters of water removed per kilowatt-hour of energy consumed. Ranges from >= 1.20 to >= 1.80 L/kWh for standard capacity units. >= 2.50 L/kWh for high capacity units. http://www.energystar.gov/ia/partners/product_specs/program_reqs/dehumid_prog_req.pdf	Current standard: Up to 25 pints/day: Minimum Energy Factor (MEF) >=1.00 25.01 to 35 pints/day: MEF >=1.20 35.01 to 54 pints/day: MEF >=1.30 54.01 to 74.99 pints/day: MEF >=1.50 75 pints/day or greater: MEF >=2.25 Effective Oct 1, 2012 (EISA): Up to 35 pints/day: MEF >=1.35; 35.01 to 45 pints/day: MEF >=1.50; 45.01 to 54 pints/day: MEF >=1.60; 54.01 to 75 pints/day: MEF >=1.70; Greater than 75 pints/day: MEF >=2.50
	Dishwashers	1996	1/1/2007	New specification finalized in November 2008, effective 8/11/2009, with a second tier effective 7/1/2011.	Current specification: Standard (>= 8 place settings + six serving pieces): Energy Factor >= 0.65; Compact (< 8 place settings + six serving pieces): Energy Factor >= 0.88 Effective Aug 11, 2009: Standard: <=324 kWh/year and <=5.8 gallons per cycle; Compact: <=234 kWh/year and <=4.0 gallons per cycle Effective July 1, 2011: Standard: <=307 kWh/year and <=5.0 gallons per cycle; Compact: <=222 kWh/year and <=3.5 gallons per cycle	Current standard: Standard models: Energy Factor (EF) >=0.46 cycles/kWh; Compact models: EF >=0.62 cycles/kWh. Effective Jan 1, 2010 (EISA): must not exceed 355 kWh/year (equivalent to 0.62 EF plus an allowance for standby power of 1 watt) and 6.5 gallons of water per cycle.
	Refrigerators & Freezers	1996	4/28/2008		Full Size Refrigerators >= 7.75 cu. ft. in volume must be > 20% more efficient than the minimum federal government standard (NAECA) Full Size Freezers >= 7.75 cu. ft. in volume must be > 10% more efficient than NAECA Compact refrigerators and freezers < 7.75 cu. ft. and <= 36 in. high must be > 20% more efficient than NAECA https://www.energystar.gov/index.cfm?c=refrig.pr crit refrigerators	Effective Jul 1, 2001 (DOE): Based on configuration and volume. http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/reffrbod.pdf (Page 16).
	Room Air Cleaners	2004	7/1/04		Must produce a minimum 50 CADR for Dust to be considered under this specification. Minimum Performance Requirement: ≥ 2.0 CADR/Watt (Dust). Standby Power Requirement: ≤ 2.0 Watts. Qualifying models that perform secondary consumer functions (e.g., clock, remote control) must meet the standby power requirement. UL Safety Requirement: Models that emit ozone as a byproduct of air cleaning must meet UL Standard 867 (ozone production must not exceed 50ppb).	N/A
	Room Air Conditioners	1996	11/16/2005		Includes Energy Efficiency Ratio (EER) requirements with and without louvered sides, for regular and reverse cycle. These requirements vary according to capacity (BTU/hr.) http://www.energystar.gov/index.cfm?c=roomac.pr crit room ac	Effective Oct 2000 (DOE): http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/racrlbod.pdf (page 4)
	Water Heaters	2009	1/1/2009		http://www.energystar.gov/ia/partners/prod_development/new_specs/downloads/water_heaters/WaterHeater_ProgramRequirements_2008.pdf	Effective Jan 20, 2004 (DOE): http://ees.ead.lbl.gov/projects/current_projects/heating_products
Commercial Food Service	Commercial Dishwashers	2007	10/11/2007		Covers undercounter, door-type, and conveyor (multi and single tank) machines. Products must meet idle energy rate (kW) and water consumption (gallons/rack) limits, as determined by by both machine type and sanitation approach (chemical/low temp versus high temp). http://www.energystar.gov/ia/partners/product_specs/eligibility/comm_dishwashers_elig.pdf	N/A
	Commercial Fryers	2003	8/15/2003	EPA considering expanding to	Open deep-fat gas fryers: Heavy load cooking energy efficiency >=50%; idle energy rate <=9,000Btu/hr. Open deep-fat electric fryers: Heavy load cooking	N/A
	Commercial Griddles	2009 (expected)	5/1/2009	larger fryers in 2009. Specification currently under	energy efficiency >=80%; idle energy rate <=1,000 watts. Requirements based on 15-inch fryer. Proposed requirements for single and double sided units include cooking energy efficiency and normalized idle energy rate.	N/A
	Commercial Hot Food Holding Cabinets	2003	(anticipated) 8/15/2003	development.	http://www.energystar.gov/index.cfm?c=new_specs.comm_griddles Maximum idle energy rate = 40 watts/ft^3	N/A
	Commercial Ice Makers	2008	1/1/2008	EPA considering expanding to flake and nugget machines in 2009.	Products must not exceed maximum energy use limit (kWh/100lbs ice), as determined by harvest rate (lbs ice/day) and equipment type. Units also must meet potable water use limits. Only air-cooled, cube type units may qualify. http://www.energystar.gov/ia/products/commercial food service/comm ice machines/Eligibility CIM.pdf	Effective Jan 1, 2010 (EPAct): Requirements for maximum energy use and maximum condenser water use based on equipment and cooling type. http://www.eere.energy.gov/buildings/appliance_standards/pdfs/epact2005_appliance_stds.pdf (page 18)
	Commercial Ovens	2009 (expected)	5/1/2009 (proposed)	Specification currently under development.	Draft specification includes maximum idle energy rates and minimum cooking/baking energy efficiency for gas and electric ovens. http://www.energystar.gov/index.cfm?c=new_specs.comm_ovens	N/A
	Commercial Solid Door Refrigerators & Freezers	2001	9/1/2001	Currently under revision. New version covers solid and glass	Products must not exceed maximum energy consumption in kWh, as determined by internal volume and unit type. https://www.energystar.gov/ia/partners/product_specs/eligibility/commer_refrig_elig.pdf	Effective Jan 1, 2010 (EPAct): (1) Designs for Holding Temperature Applications: (a) refrigerator solid, 0.10V + 2.04; (b) refrigerator glass, 0.12V + 3.34; (c) freezer solid, 0.40V + 1.38; freezer glass, 0.75 + 4.10; (d) refrigerator/freezer solid, 0.27 AV - 0.71 or 0.70 (2) Designs for Pull Down Temperature Applications and Transparent Doors, 0.126V + 3.51.
	Commercial Steam Cookers	2003	8/1/2003		Electric steam cookers 3-pan and larger must meet a minimum cooking energy efficiency of 50% and an idle rate based on pan capacity. Gas steam cookers pan and larger must meet a minimum cooking energy efficiency of 38% and an idle rate based on pan capacity. https://www.energystar.gov/ia/partners/product_specs/program_regs/commer_steamer_prog_reg.pdf	3- N/A
	Laboratory Grade Refrigerators and Freezers	TBD	TBD	Currently in test procedure review stage. Specification development work anticipated to begin mid 2009.		N/A
Heating & Cooling	Boilers	1996	4/1/2002		Rating of 85% AFUE (or CAafue for combined appliances) or greater. http://www.energystar.gov/ia/partners/product_specs/eligibility/boilers_elig.pdf	Current standard: Gas boilers: minimum 80% AFUE; oil-fired boilers: minimum 80% AFUE. Effective Sept 1, 2012 (EISA): Gas hot water: minimum 82% AFUE; gas steam: minimum 80% AFUE; oil hot water: minimum 84% AFUE; oil steam: minimum 82% AFUE.
	Ceiling Fans	2002	1/1/2009		Qualifying residential ceiling fans must meet minimum airflow (CFM) and airflow efficiency (CFM of airflow per watt of power consumed by the motor and controls) requirements. Integral or attachable lighting, including separately sold ceiling fan light kits, must meet certain requirements similar to the RLF specification (LED, fluorescent). Performance is measured at each of 3 speeds. At low, medium, and high speed, minimum airflow is 1,250 CFM, 3,000 CFM, and 5,000 CFM, and the efficiency requirement is 155 CFM/w, 100 CFM/w, and 75 CFM/w, respectively. http://www.energystar.gov/index.cfm?c=ceiling_fans.pr_crit_ceiling_fans	Effective Jan 1, 2007 (EPAct): Shall have the following features: fan speed controls separate from any lighting controls; adjustable speed controls; the capability of reversible fan action. Specific to ceiling fan light kits, (A) Light kits with medium screw based sockets shall be packaged with with screw based lamps to fill each socket that: (i) meet the ES CFL V3.0; (ii) use light sources other than CFL that have lumens per watt performance at least equivalent to the ES CFL V3.0 requirments. (B) Light kits with pin-based sockets for fluorescent lamps shall meet the ES RLF V4.0 and be packaged with lamps to fill all sockets.
	Central Air Conditioners & Air Source Heat Pumps	1995	1/1/2009		Current Tier 2 requirements: >= 8.2 HSPF/ >=14.5 SEER/ >=12 EER for split systems; >=8.0 HSPF/ >=14 SEER/ >=11 EER for single package equipment including gas/electric package units. http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/ac_ashp/Final_CAC_ASHP_Eligibility_Criteria.pdf	Current standard effective Jan 23, 2006 (DOE): split system and single package central air conditioners and heat pumps: minimum SEER=13.0, minimum HSPF=7.7. http://www1.eere.energy.gov/buildings/appliance_standards/residential/pdfs/central_ac_hp_finalrule.pdf (page 31)
	Furnaces	1995	10/1/2008	EPA is considering a new AFUE level for gas furnaces and fan efficiency requirements for a potential revision in 2009/2010.	Current Tier 2 requirements: Rating of 90% AFUE or greater for gas furnaces and a rating of 85% AFUE or greater for oil furnaces.	Effective Jan 18, 2008 (DOE): Non-weatherized gas furnaces: minimum 80% AFUE; weatherized gas furnaces: minimum 81% AFUE; mobile home gas furnaces: minimum 80% AFUE; oil-fired furnaces: minimum 82% AFUE.

Category	Product	Effective Date of Original ES Specification	Effective Date of Current ES Specification	Specification Updates	ENERGY STAR Specification Levels Currently in Effect	Federal Standard in Effect/Plans for Future Standards
	Geothermal Heat Pumps	2001	4/1/2001		Open Loop: >=3.6 COP (H); >=16.2 EER (C), Closed Loop: >=3.3 COP (H); >=14.1 EER (C), Direct Expansion (DX): >=3.5 COP (H); >=15 EER (C) http://www.energystar.gov/ia/partners/product_specs/eligibility/geo-heat_pump_elig.pdf	N/A
	Light Commercial HVAC	2002	1/1/2004	Currently under revision. New spec proposed to take effect Jan 1, 2010.	Air-Source Air Conditioner (3 phase) <65,000 Btu/h: >=13 SEER (as of 1/1/04), Air Source Air Conditioner >=65,000 Btu/h - <135,000 Btu/h: >=11.0 EER; 11.4 IPLV, Air Source Air Conditioner >=135,000 Btu/h: >=10.8 EER; 11.2 IPLV, Air-Source Heat Pump (3 phase) <65,000 Btu/h:>=13 SEER; 7.7 HSPF (as of 1/1/2004), Air-Source Heat Pump >=65,000 Btu/h - <135,000 Btu/h:>=10.1 EER (10.4 IPLV); 3.2 COP, Air-Source Heat Pump >=135,000 Btu/h - <=250,000 Btu/h :>=9.3 EER (9.5 IPLV); 3.1 COP	Current standard: <65,000 Btu/h, 3-phase, single & split system CAC/HP: SEER >=13.0, HSPF >=7.7 >=65,000 Btu/h and <135,000 Btu/h CAC/HP: EER: >=8.9, COP: >=3.0 >=135,000 Btu/h and <240,000 Btu/h CAC/HP: EER: >=8.5, COP: >=2.9 Effective Jan 1, 2010 (EPAct): Same as, or more stringent than, current ENERGY STAR: http://www.eere.energy.gov/buildings/appliance_standards/pdfs/epact2005_appliance_stds.pdf (pages 15-16)
	Programmable Thermostats	1995	2/1/2008	EPA has committed to revising or suspending performance requirements by 12/31/2009.	Shipped with a default energy saving program that is capable of maintaining two separate programs (to address the different comfort needs of weekdays and weekends) and four temperature settings or more for each day.	N/A
	Ventilating Fans	2001	1/15/2009 (anticipated)	New specification (Version 2.1) requires fan performance certification by HVI, AMCA, or another EPA-approved certifying organization. LED requirements also added.	Must meet maximum allowable sound levels (in sones), minimum efficacy levels (in cubic feet of airflow per minute per watt (cfm/W)), and a percentage of 0.1 in. w.g. static pressure rated airflow at 0.25 in. w.g. static pressure. These various factors differ according to fan type and airflow. Performance results must be certified by third party organization. http://www.energystar.gov/index.cfm?c=revisions.vent fans spec	N/A
Home Electronics	Audio/Video Products	1999	1/1/2003	Specification is currently under	Consume one watt or less when in standby mode.	N/A
	Battery Charging Systems	2006	1/1/2006	revision. EPA is considering revisiting requirements in 2009/2010.	A battery charging system must not exceed a maximum Nonactive Energy Ratio, which is based on the nominal battery voltage (Vb) for ENERGY STAR qualification. www.energystar.gov/index.cfm?c=battery_chargers.pr_crit_battery_chargers_	DOE is determining whether standards are appropriate.
	Cordless Phones	2002	11/1/2008		Additional handsets must consume 1 watt or less when in standby mode; cordless phones and answering machines must consume 2 watts or less when in standby mode; and combination products must consume 2.5 watts or less when in standby mode. External power supplies (EPS) packaged with telephony products must meet all ENERGY STAR requirements for EPS devices, except for the no-load power consumption requirements.	N/A
	Digital to analog (DTA)	2007	1/31/2007		Consume 8 watts or less in On mode and 1 watt or less in sleep mode. Must also incorporate an auto power down feature to go from on to sleep after 4 hours	N/A
	External Power Adapters	2005	11/1/2008		or less of user inactivity. Based on nameplate output power, products must meet a minimum average efficiency in active mode and a maximum wattage in no-load. In addition, power supplies with greater than or equal to 100 watts input power must have a true power factor of 0.9 or greater at 100% of rated load when tested at 115 volts @ 60 Hz. http://www.energystar.gov/index.cfm?c=ext_power_supplies.ex_ps_keyproducts	Effective July 1, 2008: Based on nameplate output power, products must meet a mimimum average efficiency in active mode and a maximum wattage in no-load, meeting Level IV in the International Efficiency Marking Protocol. http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=110_cong_public_laws&docid=f:publ140.110.pdf (page 60)
	Set-Top Boxes	2001	1/1/2009		To qualify for ENERGY STAR, set-top boxes must meet an annual energy allowance when tested to a typical viewing pattern. The ENERGY STAR energy allowance varies by base functionality (e.g., cable, satellite, IP) and additional features present, such as additional tuners or a DVR. http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/settop_boxes/Set-top_Boxes_Spec.pdf	N/A
	Televisions	1998	11/1/2008	development. Anticipated	Must consume 1 watt or less in Standby Mode. On Mode power requirements vary according to screen area and whether the unit is non-high, high, or full high definition. External power supplies (EPS) packaged with TV products must meet all ENERGY STAR requirements for EPS devices.	N/A
	VCR	1998	N/A	11/1/2008: ENERGY STAR label suspended.	N/A	N/A
Home Envelope	Roof Products	1999	12/31/2007	odoponado.	Partners must submit initial emissivity data for all existing and new products and all new products cannot be cleaned prior to the three year test. Reflectivity requirements differ for low-slope and steep-slope roofs. https://www.energystar.gov/index.cfm?c=roof_prods.pr_crit_roof_products	N/A
	Windows, Doors, Skylights	1998	9/19/2005	Currently under revision.	http://www.energystar.gov/index.cfm?c=windows_doors.pr_crit_windows	N/A
Lighting	Compact Fluorescent Lightbulbs	1999	12/2/2008		New efficiency requirements based on lamp type and input power. Minimum rated lifetime of 6,000 hours or greater, with an 8,000 hour requirement going into effect one year after finalization. Many additional criteria to control quality and performance. http://www.energystar.gov/ia/partners/prod development/revisions/downloads/cfis/Criteria CFLs V4.pdf	Effective Jan 2006 (EPAct): Standards are subset of ENERGY STAR criteria for CFLs, Version 2.0.
	Decorative Light Strings	2007	3/1/2008		Decorative Light Strings must meet stringent efficiency (under 0.2W per bulb) and quality (3-year warranty, protection against over-voltage, maintained light output) requirements. In addition, qualified light strings must meet product packaging requirements to ensure consumers have a clear understanding of products when they look to purchase light strings. http://www.energystar.gov/index.cfm?c=dls.pr crit dls	N/A
	Exit Signs	1996	N/A	5/1/2008: ENERGY STAR label suspended.	N/A	Effective Jan 1, 2006 (EPAct): All electrically powered exit signs manufactured on or after Jan 1, 2006 must meet the ENERGY STAR V2.0 requirements and have an input power demand of 5 watts or less per face.
	Residential Light Fixtures	1997	8/1/2008		Both indoor and outdoor fixtures must meet minimum standards for lamp/ballast system efficacy, minimum lamp and ballast quality standards, and fixture requirements for safety and labeling. Requirements for GU24 based integrated replacement lamps included under this specification, along with test procedures for residential light fixtures using LED Light Engines. http://www.energystar.gov/ia/partners/prod_development/revisions/downloads/fixtures/RLF_V4_2_FINAL.pdf	Effective Jan 1, 2006 (EPAct): Torchieres shall consume not more than 190 watts of power and shall not be capable of operating with lamps that hold more than 190 watts.
	SSL	2008	9/30/2008		http://www.energystar.gov/ia/partners/prod_development/new_specs/downloads/SSL_FinalCriteria.pdf	N/A Effective Jan 1, 2006 (EPAct): Shall: (1) meet the performance requirements used under the
	Traffic Signals	2000	N/A	5/1/2007: ENERGY STAR label suspended	N/A	ENERGY STAR V1.1 specification and (2) be installed with compatible, electrically connected signal control interface devices and conflict monitoring systems.
Office Equipment	Computers	1992	7/20/2007	Version 5.0 finalized 11/14/2008, effective 7/1/2009.	The Computer specification covers a number of common computer categories including desktops, notebooks, and workstations, among others. ENERGY STAR qualified computers must meet stringent energy consumption limits in Off, Sleep, and Idle modes of operation, use efficient power supplies, and automatically be set to take advantage of the sizeable energy savings opportunities of computer/display power management after a certain amount of user inactivity. The Version 4.0 specification and related information are available at http://www.energystar.gov/ia/partners/prod/development/revisions/downloads/computer/Version5.0 Computer Spec.pdf	N/A
	Copiers	1995	4/1/2007		Product must meet energy requirements outlined in Verison 1.0 Imaging Equipment Specification. Requirements for products are set based on size format and color capability. http://www.energystar.gov/ia/products/fap/IE Prog Req.pdf	N/A
	Digital Duplicators	2007	4/1/2007	Version 1.1 of the Imaging Equipment specification was finalized on 10/1/2008 and will go into effect on 7/1/2009.	Product must meet energy requirements outlined in Verison 1.0 Imaging Equipment Specification. Requirements for products are set based on color capability. http://www.energystar.gov/ia/products/fap/le_Prog_Req.pdf	N/A
	Enterprise Servers	2009 (expected)	TBD	Specification currently under development.	Draft specification includes minimum power supply efficiency, maximum idle power, power/temperature display requirements, and other standard information reporting requirements. http://www.energystar.gov/index.cfm?c=new_specs.enterprise_servers_	N/A

ENERGY STAR Specifications At-A-Glance

Category	Product	Effective Date of Original ES Specification	Effective Date of Current ES Specification	Specification Updates	ENERGY STAR Specification Levels Currently in Effect	Federal Standard in Effect/Plans for Future Standards
	Monitors	1992	1/1/2006	Specification currently under revision. Anticipated effective dates are 10/30/2009 for Tier 1, and 10/30/2011 for Tier 2.	Maximum allowable Active Mode power consumption varies according to monitor resolution. Under Tier 2, currently in effect, Sleep Mode power consumption must be <= 2 watts and Off Mode power consumption must be <= 1 watt. http://www.energystar.gov/index.cfm?fuseaction=find_a_product.showProductGroup&pgw_code=MO	N/A
	Multifunction Devices (MFDs)	1997	4/1/2007	Version 1.1 of the Imaging Equipment specification was finalized on 10/1/2008 and will go into effect on 7/1/2009.	Product must meet energy requirements outlined in Verison 1.0 Imaging Equipment Specification. Requirements for products are set based on size format, marking technology, and color capability. http://www.energystar.qov/ia/products/fap/IE Prog Req.pdf	N/A
	Printers, Fax Machines, and Mailing Machines	1993 - Printers 1995 - Fax 2000 - Mailing Machines	4/1/2007	Version 1.1 of the Imaging Equipment specification was finalized on 10/1/2008 and will go into effect on 7/1/2009.	Product must meet energy requirements outlined in Verison 1.0 Imaging Equipment Specification. Requirements for products are set based on size format, marking technology, and color capability. http://www.energystar.qov/ia/products/fap/IE Prog Req.pdf	N/A
	Scanners	1997	4/1/2007	Version 1.1 of the Imaging Equipment specification was finalized on 10/1/2008 and will go into effect on 7/1/2009.	Product must meet energy requirements outlined in Verison 1.0 Imaging Equipment Specification. http://www.energystar.gov/ia/products/fap/IE_Prog_Req.pdf	N/A
Other	Transformers	1995	N/A	5/1/2007: ENERGY STAR label suspended	N/A	Effective Jan 1, 2007 (EPAct): Class I Efficiency Levels for distribution transformers specified in table 4-2 of the Guide for Determining Energy Efficiency for Distribution Transformers published by the National Electrical Manufacturers Association (NEMA TP-1-2002), which are identical to ENERGY STAR levels in effect at that time.
	Vending Machines	2004	7/1/2007		Energy Efficiency Requirements: Y = 0.45 (8.66 + (0.009 x C)), Where: Y = 24 hr energy consumption (kWh/day) after the machine has stabilized, and C = vendible capacity. Includes both new and remanufacturered units. Machines shall also be capable of operating in at least one of the following low power mode states: (1) Lighting low power state — lights off for an extended period of time; (2) Refrigeration low power state — the average beverage temperature is allowed to rise above 40°F for an extended period of time; (3) Whole machine low power state — the lights are off and the refrigeration operates in its low power state. In addition, the machine shall be capable of returning itself back to its normal operating conditions at the conclusion of the inactivity period. https://www.energystar.gov/index.cfm?c=vending machines.pr crit vending machines	N/A
	Water Coolers	2000	5/19/2004	EPA is considering revisiting requirements in 2009/2010.	Energy Efficiency Requirements: Cold Only & Cook & Cold Bottled Units <0.16 kW- hours/ day; Hot & Cold Bottled Units <1.20 kW- hours/day	N/A
	n on historical specifications can br.gov/index.cfm?c=product_specs					
Additional information on current specifications can be found at: http://www.energystar.gov/index.cfm?fuseaction=find_a_product.						