



## ENERGY STAR® Program Requirements for CFLs Partner Commitments

DRAFT: 12/12/02

### Eligible Organizations: Manufacturers and Distributors of Compact Fluorescent Lamps (CFLs)

#### Commitment

The following are the terms of the ENERGY STAR Partnership Agreement as it pertains to the manufacturing and/or distributing of ENERGY STAR qualified CFLs. The ENERGY STAR PARTNER must adhere to the following program requirements:

- Comply with current ENERGY STAR Eligibility Criteria, defining the performance criteria that must be met for use of the ENERGY STAR certification mark on CFLs and the testing criteria for CFLs. DOE may, at its discretion, conduct tests on products that are referred to as ENERGY STAR qualified. These products may be obtained on the open market, or voluntarily supplied by PARTNER at DOE's request;
- Comply with current ENERGY STAR Logo Use Guidelines, describing how the ENERGY STAR labels and name may be used. PARTNER is responsible for adhering to these guidelines and for ensuring that its authorized representatives, such as advertising agencies, dealers, and distributors, are also in compliance;
- Qualify, or private label at least one ENERGY STAR labeled CFL model within one year of activating the CFLs portion of the agreement. When PARTNER qualifies the product, it must meet the Specification in effect at that time;
- Provide clear and consistent labeling of ENERGY STAR qualified CFLs. The ENERGY STAR label must be clearly displayed on product packaging, on the Partner's Internet web site where information about ENERGY STAR qualified models is displayed, and in product literature (i.e., catalogs, user manuals, spec sheets, etc.). It is also required that the ENERGY STAR certification logo appear on the front of the product's packaging;
- Provide to DOE, a quarterly updated list of ENERGY STAR qualifying CFL models. Partners must inform DOE in these updates if any existing qualified CFL models will be phased out and the timing of such. Once the PARTNER submits its first qualified model to ENERGY STAR, the PARTNER's company name will be listed as an ENERGY STAR PARTNER (<http://www.energystar.gov>). PARTNER must provide quarterly updates in order to remain on the list of participating product manufacturers;
- For each qualifying CFL model, provide to DOE accredited test data for the specific model(s) to certify that the lamp(s) have met the required safety and performance tests;
- For each qualifying CFL model, provide to DOE product packaging samples (either electronic or hard copy for the specific model(s)) to certify that the lamps met the required packaging requirements. DOE will only add models to its Product List after reviewing and approving the product test results and product packaging;
- Provide to DOE, on a bi-annual basis, unit shipment data or other market indicators to assist in determining the market penetration of ENERGY STAR CFLs. Specifically, PARTNER must submit the total number of ENERGY STAR qualified CFLs shipped (in units by model) or an equivalent measurement as agreed to in advance by DOE and PARTNER. PARTNER is also encouraged to provide ENERGY STAR qualified unit shipment data segmented by meaningful product characteristics (e.g. bulb type/style) total unit shipments for each model in its product line, and percent of total unit shipments that qualify as ENERGY STAR. The data for each half of the calendar year should be submitted to DOE, preferably in electronic format, no later than March 31<sup>st</sup> (for second half of the year) and July 31<sup>st</sup> (for first half of the year), and may be provided directly from the PARTNER or through a third party. The data will be used by

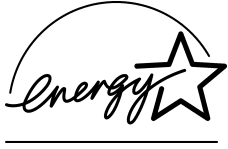
DOE only for program evaluation purposes and will be closely controlled. If requested under the Freedom of Information Act (FOIA), DOE will argue that the data is exempt. Any information used will be masked by DOE so as to protect the confidentiality of the PARTNER;

- Notify DOE of a change in the designated responsible party or contacts for CFLs within 30 days.

### **Performance for Special Distinction**

In order to receive additional recognition and/or support from DOE for its efforts within the Partnership, the ENERGY STAR PARTNER may consider the following voluntary measures and should keep DOE informed on the progress of these efforts:

- Consider energy efficiency improvements in company facilities and pursue the ENERGY STAR label for buildings;
- Purchase ENERGY STAR labeled products. Revise the company purchasing or procurement specifications to include ENERGY STAR. Provide procurement officials' contact information to DOE for periodic updates and coordination. Circulate general ENERGY STAR labeled product information to employees for use when purchasing products for their homes;
- Ensure the power management feature is enabled on all ENERGY STAR qualified monitors in use in company facilities, particularly upon installation and after service is performed;
- Provide general information about the ENERGY STAR program to employees whose jobs are relevant to the development, marketing, sales, and service of current ENERGY STAR labeled product models;
- Feature the ENERGY STAR label(s) on PARTNER web site and in other promotional materials. If information concerning ENERGY STAR is provided on the PARTNER web site, DOE may provide links where appropriate to the PARTNER web site;
- Provide a simple plan to DOE outlining specific measures PARTNER plans to undertake beyond the program requirements listed above. By doing so, DOE may be able to coordinate, communicate, and/or promote PARTNER's activities, provide a DOE representative, or include news about the event in the ENERGY STAR newsletter, on the ENERGY STAR web pages, etc. The plan may be as simple as providing a list of planned activities or planned milestones that PARTNER would like DOE to be aware of. For example, activities may include: (1) increase the availability of ENERGY STAR labeled products by converting the entire product line within two years to meet ENERGY STAR guidelines; (2) demonstrate the economic and environmental benefits of energy efficiency through special in-store displays twice a year; (3) provide information to users (via the web site and user's manual) about energy-saving features and operating characteristics of ENERGY STAR qualified products, and (4) build awareness of the ENERGY STAR Partnership and brand identity by collaborating with DOE on one print advertorial and one live press event;
- Provide quarterly, written updates to DOE as to the efforts undertaken by PARTNER to increase availability of ENERGY STAR qualified products, and to promote awareness of ENERGY STAR and its message.



**ENERGY STAR® Program Requirements for CFLs**  
**ENERGY STAR Eligibility Criteria**  
**Energy-Efficiency Specification**

Below is the product specification for ENERGY STAR qualified Compact Fluorescent Lamps (CFLs). A product must meet all of the identified criteria if it is to be qualified as ENERGY STAR by its manufacturer or distributor.

- 1) **Scope:** This ENERGY STAR CFL Specification covers the requirements for self-ballasted, medium-base, screw-based CFLs, including:
  - A. Medium-based, compact fluorescent lamps with integral electronic ballasts;
  - B. Circleline lamps with a maximum diameter of 9 inches and square lamps, with a maximum side length of 8 inches with medium base electronic ballast that is tested and packaged with the lamp.
  - C. Medium-based compact fluorescent lamps with integral electronic ballasts, which have a translucent cover over the bare fluorescent tube. The cover may be globe, bullet, pear, torpedo, or any other shape.
  - D. Medium-based compact fluorescent lamps with integral electronic ballasts, which have a reflector that may be open or enclosed. The lamp shall be primarily intended to replace wide beam incandescent reflector lamps.

The intent of this ENERGY STAR program is to move consumers from incandescent to energy-efficient compact fluorescent lighting. ENERGY STAR qualified compact fluorescent lamps are primarily intended for residential applications.

2) **Definitions:**

- A. Self-ballasted compact fluorescent lamp – A compact fluorescent lamp unit that incorporates, permanently enclosed, all elements that are necessary for the starting and stable operation of the lamp, and which does not include any replaceable or interchangeable parts.
- B. Rated voltage – The voltage marked on the lamp.
- C. Rated wattage – The wattage marked on the lamp.
- D. Rated supply frequency – The frequency marked on the lamp.
- E. Initial performance values – The photometric and electrical characteristics at the end of the 100-hour aging period.
- F. Rated luminous flux or lumen output – Initial lumen rating (100-hour) declared by the manufacturer.
- G. Lumen maintenance – The luminous flux or lumen output at a given time in the life of the lamp and expressed as a percentage of the initial luminous flux. The mean lumens are the value at 40% of rated life.
- H. Average rated lamp life – The length of time declared by the manufacturer at which 50% of any large number of lamps reaches the end of their individual lives.
- I. Lamp color – The color characteristics of a lamp as defined by the color appearance and the color rendition.
- J. Color appearance – The actual color of the lamp is called the color appearance and is defined in terms of the spectral tri-stimulus values (color coordinates) according to the recommendations of the CIE Publication No. 13.3 – 1995. For color coordinates near the black body loci, the correlated color temperature (Kelvin) can be used to define color appearance.
- K. Color rendition – The effect the spectral characteristic of the light emitted by the lamp has on the color appearance of the objects illuminated by it is called color rendition. The color rendering index is defined in terms of a comparison of the spectral tri-stimulus values of the objects under test illumination and standard illumination according to the recommendations of CIE Publication No. 13.3-1995
- L. Starting time – The time needed after switching on for the lamp to start fully and remain lighted.
- M. Run-up time – The time needed after switching on the supply for the lamp to reach 80% of its stabilized luminous flux.
- N. Starting temperature – The minimum and maximum temperatures at which the lamp will reliably start.

- O. Power factor – The active power divided by the apparent power (i.e. product of the rms input voltage and rms input current of a ballast).
- P. Private labeled CFL – ENERGY STAR partner who purchases an ENERGY STAR qualified CFL and markets the model under its own brand name as an ENERGY STAR qualified CFL.

3) **Reference Standards:** ENERGY STAR qualified compact fluorescent lamps and lamp systems shall comply with the relevant clauses of the following standards, unless the requirements of the ENERGY STAR specification are more restrictive:

ANSI C78.1 – 1991	<i>Fluorescent Lamps – Rapid-Start Types</i>
ANSI C78.4 – 1995	<i>Fluorescent Lamps – Self-Supporting Single-Based Compact Types</i>
ANSI C78.5 – 1997	<i>Specifications for Performance of Self-Ballasted Compacted Fluorescent Lamps</i>
ANSI C78.375 – 1997	<i>Guide for Electrical Measurements of Fluorescent Lamps</i>
ANSI/IEEE C62.41 – 1991	<i>Surge Voltages in Low-Voltage AC Power Circuits, Recommended Practice for</i>
CIE Publication No. 13.3 – 1995	<i>Method of Measuring and Specifying Color Rendering of Light Sources</i>
IESNA LM-9 – 1998	<i>Electric &amp; Photometric Measurement of Fluorescent Lamps</i>
IESNA LM-40 – 1987	<i>Approved Method for Life Performance Testing of Fluorescent Lamps</i>
IESNA LM-65 – 1991	<i>Life Testing of Single-ended Compact Fluorescent Lamps</i>
IESNA LM-66 – 1991	<i>Electrical and Photometric Measurements of Single-Compact Fluorescent Lamps</i>
UL 1993 – 1993	<i>Standard for Self-Ballasted Lamps and Lamp Adapters</i>

ENERGY STAR qualified compact fluorescent lamps and lamp systems shall comply as applicable with the labeling requirements of the U.S. Federal Trade Commission (16 CFR Part 305.1-.18) and the EMI requirements of the U.S. Federal Communications Commission located under 47 CFR Part 18.

#### 4) CFL Requirements for Testing

Photometric Performance Requirements				
Specification Item	ENERGY STAR Requirements	Sample Size	Laboratory Requirement	Submittal Time
<b>Lamp Power (Watts) &amp; Configuration</b> <sup>1</sup>	<b>Minimum Efficacy:</b> Lumens/watt (Based upon initial lumen data <sup>2</sup> )	10 units per model – 5 base-up/5 base-down unless specific use or position restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position (i.e. – reflector used in recessed cans – must test all 10 samples in base up position)	Must use a lab accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) <sup>3</sup> .	Qualification
<u>Bare lamp:</u> Lamp power <15 Lamp power ≥15	45.0 60.0			
<u>Covered lamp (no reflector)</u> Lamp power <15 15 ≤ lamp power <19 19 ≤ lamp power <25 Lamp power ≥ 25	40.0 48.0 50.0 55.0			
<u>W/Reflector:</u> Lamp power <20 Lamp power ≥20	33.0 40.0			
1,000-hour Lumen Maintenance	Average of 10 lamps must be greater than 90.00% of initial (100-hour) lumen output @ 1,000 hours of rated life.			
Color Rendering (CRI)	Average of 10 samples tested must be > 80.00			
Color Rendering (CRI) for Niche Application Colored CFLs	For colored CFLs (such as bug lights), the average of 10 samples must be > 77.00			
Correlated Color Temperature (CCT)	Average of 10 samples must be between 2700K and 3000K to market CFL as warm, soft white equivalent. If not, packaging must clearly state temperature (in Kelvins) and corresponding color of product (cool white or warm white)	10 units per model – 5 base-up/5 base-down unless specific use or position restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position (i.e. – reflector used in recessed cans – must test all 10 samples in base up position)	Self-Certification <sup>4</sup>	Qualification
Lumen Maintenance	Average of 10 samples must be greater than 80.00% of initial (100-hour) rating at 40% of model's rated life (Per ANSI C78.5, Clause 4.10)	10 units per model – 5 base-up/5 base-down unless specific use or position restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position (i.e. – reflector used in recessed cans – must test all 10 samples in base up position)	NVLAP only	Qualification

<sup>1</sup>Take performance and electrical requirements at the end of the 100-hour aging period according to ANSI C78.5. The lamp efficacy shall be the average of the lesser of the lumens per watt measured in the base up and base-down positions. Use wattages placed on packaging to select proper specification efficacy in this table, not measured wattage. Labeled wattages are used for reference only.

<sup>2</sup>Efficacies are based on measured values for lumens and wattages from pertinent test data. Wattages and lumens placed on packages may not be used in calculation and are not governed by this specification. For multi-level, such as 3-way or dimmable systems, measurement must be at the highest wattage setting listed for model. Acceptable efficacy and lumen output measurement error is +/- 3%.

<sup>3</sup>For a list of NVLAP accredited labs, visit <http://ts.nist.gov/ts/htdocs/210/214/scopes/eeelit.htm>

<sup>4</sup>Self-certification is a declaration of conformance by the manufacturer to the requirement. For self-certification where data are required (sample size is specified in the requirement), the manufacturer may use data obtained directly from the manufacturer's own facilities that are neither NVLAP nor A2LA accredited.

Electrical Performance Requirements <sup>6</sup>				
Specification Item	ENERGY STAR Requirements	Sample Size	Laboratory Requirement	Submittal Time
Power Factor	≥ 0.50	10 units per model – 5 base-up/5 base-down unless specific use or position restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position (i.e. – reflector used in recessed cans – must test all 10 samples in base up position) .	Use NVLAP or A2LA <sup>5</sup> accredited labs	Qualification
Run-up Time	≤ 3.00 minutes per ANSI C78.5, clause 3.11 and 4.8			
Starting Time	Time after switching on until full start (and remain lighted) shall be an average of < 1.00 second			
Transient Protection	Per ANSI/IEEE C62.41, Category A, 7 strikes Note: one failure to meet 7 strikes will result in test failure and therefore, failure to meet the Specification.	10 units per model – 5 base-up/5 base-down unless specific use or position restricted by the manufacturer. If position restricted, manufacturer must test all 10 samples in restricted position (i.e. – reflector used in recessed cans – must test all 10 samples in base up position) <i>Must be unique sample for this test only</i>	Use NVLAP or A2LA <sup>5</sup> accredited labs or manufacturer may self test and self certify	Qualification
Operating Frequency	≥ 40 kHz	Determined by Test Lab	FCC laboratory or manufacturer's laboratory <sup>7</sup>	
Electromagnetic Interference	Compliance with FCC 47 CFR Part 18 requirements for consumer limits			
Base	Medium screw base - E26/24	Self-certification		Qualification
Starting Temperature	Package <u>must</u> state the minimum starting temperatures or geographical zone of use and any other conditions (e.g. use in enclosed luminaire) for reliable starting to meet the starting time requirements of ANSI C78.5, Clause 4.7			
Compatibility with Controls	Lamp package <u>must clearly state</u> any known incompatibility with photo controls, dimmers or timing devices.			

<sup>5</sup>For a list of American Association for Laboratory Accreditation (A2LA), visit [www.a2la.org](http://www.a2la.org)

<sup>6</sup> Input voltage must be 120 V and frequency must be 60 Hz

<sup>7</sup>Laboratory must be listed on FCC Office of Engineering & Technology web site, and with either NVLAP or A2LA accreditation.

Lifetime Performance Requirements				
Specification Item	ENERGY STAR Requirements	Sample Size	Laboratory Requirement	Submittal Time
Warranty ( <i>applicable to normal residential use</i> )	<ul style="list-style-type: none"> <li>o Product packaging must state "Warranty" (and not "guarantee" or any other term),</li> <li>o Warranty must cover at least 24 months (2 years) from date of purchase,</li> <li>o an "800" number, and</li> <li>o address for consumer complaint resolution.</li> </ul>	Must submit electronic draft or hard-copy draft of specific CFL model. Packaging must include the following information to be reviewed for qualification requirements: <ul style="list-style-type: none"> <li>o <i>model number</i></li> <li>o <i>Wattage</i></li> <li>o <i>lumen output</i></li> <li>o <i>average rated lifetime</i></li> <li>o <i>warranty</i></li> <li>o <i>equivalency to incandescents</i></li> <li>o <i>starting temperature</i></li> <li>o <i>electromagnetic interference</i></li> <li>o <i>compatibility with controls</i>.</li> </ul>	Self-certification	Qualification
Product Packaging	<ul style="list-style-type: none"> <li>o In English, or English with additional languages.</li> <li>o Packaging must meet FTC 16CFR Part 305.1-.18.<sup>8</sup></li> <li>o ENERGY STAR logo must be located on the front of the packaging only and must be no smaller than 0.5 inches in length or larger than 1.5 inches.</li> </ul>			
CFL/Incandescent Equivalency <sup>9</sup>	Based on initial average 100-hour lumen output measurement, partner can use lumen level to declare an incandescent equivalency, following the chart below.	Average of data used from 100-hour lumen output measurement	NVLAP only	Qualification
Average Rated Lamp Life	≥ 6,000 hours as declared by the manufacturer on packaging and qualification form. Partner must complete lifetime test to stated lamp life on packaging (i.e. – if CFL is marketed as a 10,000 hour CFL, it must complete the life time test to 10,000 hours before it will be qualified as ENERGY STAR.)	10 units per model, 5 base-up/ 5 base-down, unless specific use or position appears on packaging	NVLAP, A2LA, or ISO9000 certified laboratories or facilities	Qualification

<sup>8</sup>For information on how CFLs must comply with the FTC's Appliance labeling act, visit [www.ftc.gov/bcp/conline/edcams/appliances/biz.htm](http://www.ftc.gov/bcp/conline/edcams/appliances/biz.htm).

<sup>9</sup>If displaying an incandescent equivalence for commonly used A-shaped bulbs, the CFL's initial luminous flux or lumen output must meet the following levels. The table shows typical luminous flux for A-shaped, soft white, incandescent bulbs. Based on research conducted by NLRPIIP ([www.lrc.rpi.edu/NLRPIIP/Online/index.html](http://www.lrc.rpi.edu/NLRPIIP/Online/index.html)), luminous flux varies considerably among bulbs. The table below is intended to aid in consumer choice and in no way supercedes or replaces any requirement for product performance contained in this specification. If the luminous flux falls outside of the range, either do not display an incandescent equivalence or display the lower incandescent wattage equivalence. If displaying an incandescent equivalent for Globe, Reflector, or Decorative type bulbs, the initial luminous flux for both the CFL and the appropriate Globe, Reflector, or Decorative incandescent bulb must be displayed side by side in a comparison panel, along with the wattage ratings for both the CFL and incandescent bulb.

A-Shaped Incandescent bulb (Watts)	Typical Luminous Flux (Lumens) <sup>†</sup> <sup>†</sup> Lumens must be 100 hr, initial values for CFLs
40	Minimum of 450
60	Minimum of 800
75	Minimum of 1,100
100	Minimum of 1,600
150	Minimum of 2,600

Referenced Standards/Procedures		
Performance Characteristics	Test Procedure	
	Compact Fluorescent ( <i>see note below</i> )	Circle design
Lumen Output and Efficacy	IESNA – LM66	IESNA – LM9
Lumen Depreciation and Life	IESNA – LM65 & ANSI – C78.5	IESNA – LM40
Color Rendering Index	CIE Publication 13.3	
Transient Protection	ANSI/IEEE C62.41, Category A, 7 strikes	
Electromagnetic Interference	FCC 47 CFR Part 18 for consumer limits	

*Note: Testing with a reference ballast shall not apply to integrally ballasted compact fluorescent lamps. These lamps shall be measured with their integral ballasts at 120 volts and 60 Hz.*

**5) Certification:** Manufacturers shall certify that ENERGY STAR qualified compact fluorescent lamps sold using the ENERGY STAR label have:

- 1) Been tested and third party listed to UL Standard 1993 for Self-Ballasted Lamps and Lamp Adapters by a Nationally Recognized Testing Laboratory (NRTL) accredited by Occupational, Safety, and Health Administration (OSHA),
- 2) Met the manufacturers' declared performance criteria,
- 3) Meet or exceed the minimum performance criteria contained in this ENERGY STAR Specification for the characteristics shown above.

**Note:** If qualified CFL does not fulfill all requirements above, the model will not be qualified as ENERGY STAR. If, after qualification, a model is found to not meet any of these requirements, it will be immediately removed from the ENERGY STAR qualified product list.

**6) Qualification:** Manufacturers can submit their CFL for ENERGY STAR qualification by the following procedure:

Partners must submit **completed** test reports (see below for specific list of tests) from either their properly accredited laboratories or properly accredited third-party testing facilities, which must certify to the authenticity and integrity of the test data. In addition, partners and accredited laboratories must complete the ENERGY STAR CFL Qualification Form and submit it with the test report and product packaging draft (either in electronic or hard-copy form). This test report and product packaging must indicate that a new model meets the Specification. Incomplete test reports or qualification forms will not be accepted for ENERGY STAR qualification. Partners must complete the following tests before they will be considered for ENERGY STAR qualification:

- Efficacy (which includes 100-hour lumen output)
- 1,000-hour lumen maintenance
- Lumen maintenance at 40% of rated life
- Color Rendering (CRI)
- Correlated Color Temperature (CCT)
- Power Factor
- Run-up Time
- Start-up Time
- Transient Protection
- Operating Frequency
- Average Rated Lifetime Test (to completion)

A model that meets ALL stated criteria will be considered ENERGY STAR qualified and will receive a letter stating they have met all necessary criteria and can market this CFL model as ENERGY STAR by using the certification mark on the product packaging, and identifying the product in marketing materials, and web site.

**7) Private Labeling Products** – Manufacturers, distributors, retailers, and other ENERGY STAR partners may purchase existing qualified CFL products and submit them for listing on the qualified product list by completing a Private Labeler qualification form (*available from your account manager*) and submitting a product packaging draft



for review. Once the private labeler form and product packaging has been reviewed and accepted, the private labeling partner will receive a letter from ENERGY STAR stating that this model can begin to use the certification mark on its packaging and marketed as an ENERGY STAR product.

**Packaging for Private Labeled CFLs:** Partners must label their privately labeled CFLs with the exact information (wattage, lumen output, rated life time, equivalency, etc.) their supplier has submitted to ENERGY STAR. If packaging is submitted with incorrect information, the model will not be qualified as ENERGY STAR.

**Changing of Qualified CFL Supplier:** Partners are required to inform ENERGY STAR within 30 days of changing their supplier of one or more of their privately labeled CFLs. Partners must submit new Private Labeler Forms for the new product with new model number.

**NOTE:** The private labeled products, or products with different model or product numbers, fall under the same quality assurance and de-listing protocol as the originally tested model. Therefore, if the original qualified model is removed from the ENERGY STAR qualified list by the manufacturer or by DOE, the corresponding privately labeled model(s) will be unqualified immediately on the qualified product list.

**8) Labeling and Product Packaging Review** – All partners who are qualifying a CFL must submit electronic or hard-copy labeling and packaging samples for the specific CFL model. Packaging must include the following information to be reviewed for qualification requirements: *model number, wattage, lumen output, average rated lifetime, warranty, equivalency to incandescents, starting temperature, electromagnetic interference, compatibility with controls*. Failure to meet the packaging requirements of the Specification will delay the qualification process. No new models will be accepted until all packaging requirements are met. The specific qualified model must be distributed within this approved product packaging.

**NOTE:** If a partner is found distributing qualified CFLs in plain packaging (i.e. – white box) instead of the approved packaging, the qualified model will be unqualified immediately on the qualified product list.

Once all requirements have been met for packaging, ENERGY STAR will list the new qualified model on the [www.energystar.gov](http://www.energystar.gov) web site. All labeling must be in accordance with ENERGY STAR logo use guidelines found in the Partnership Agreement and FTC's Appliance Labeling Act regulations. Packaging and promotional materials using the label should be submitted to ENERGY STAR for final review and approval.

**9) Quality Assurance and Unqualification of CFL Products:** Manufacturers, distributors, and other partners are encouraged to participate in on-going quality control programs traceable to NVLAP or A2LA accredited facilities. The quality control programs should include random off-the-shelf testing.

Additional and/or separate off-the-shelf testing may be conducted by a NVLAP accredited facility based on complaints or other suspicion of non-compliance, or as part of a random test program. If a model fails quality control or off-the-shelf testing, ENERGY STAR may request further testing by the partner to demonstrate why the product should keep its qualification. Or if the quality control, or 3<sup>rd</sup> party data, shows clear proof that the product in question has failed to meet the Specification, ENERGY STAR will immediately remove the CFL model from the qualified product list.

Unqualification, or de-listing, of a model may also result from evidence of non-compliance with the ENERGY STAR partnership agreement and/or Specification. If a product is unqualified, the manufacturer must retire that specific model number so that it removes any market confusion regarding the product's ENERGY STAR qualification status. If a partner submits a new CFL product under a previously qualified model number, the program will not accept the test information. A pattern of de-listings may result in termination of the partnership agreement.

Should a product be unqualified, or de-listed, the manufacturer, distributor, or retailer must cease use of the ENERGY STAR logo on the model's packaging, product's web site, and marketing materials. When a product is unqualified, the partner has a 60-day "grace period" from the date of notice to complete any utility or Regional Energy-Efficiency Program Sponsor (REPS) rebate program, or begin to phase out the specific model from any utility or REPS rebate if special deal promotion will run longer than 60 days. The partner is responsible for resolving any resulting issues with retailers and regional program implementers after this 60-day grace period has

ended. ENERGY STAR will alert utilities, REPS, and retailers to this specific product's change in qualification by using the following communication avenues:

- Posting as "unqualified" on the ENERGY STAR CFL qualified product list
- E-mail announcement to utility/REPS/retail partners announcing the new information

**10) Effective Date:** The effective date for the ENERGY STAR Program Requirements for CFLs is **April 1, 2003**, and replaces all previous versions. On April 1, 2003, those partners who qualified products based on the older version of the CFL Specification and have outstanding test data still due will be required to continue testing based on issued due dates they received in their initial qualification letter. Any partner who fails to submit test data according to their due dates for specific model(s) will have their products immediately removed from the qualified product list for failure to complete the full qualification process. At this time, partners who have products that have met full qualification under the former specification and received a full qualification from ENERGY STAR will remain qualified.

**11) Future Specification Revisions:** ENERGY STAR reserves the right to change the specification should technological and/or market changes affect its usefulness to consumers, industry, or the environment. Within one year of the effective date of this version of the specification, ENERGY STAR will review comments and suggestions for increasing efficacy and the scope of the CFL specification.