

APPENDIX A

Outlined below is the complete ENERGY STAR^a specification for screw-base CFLs. This specification is the foundation for the SCE CFL Program, and shall be utilized in its complete form to determine qualified models.

These specifications are taken directly from the Department of Energy May 1999 ENERGY STAR^a CFL Licensing Agreement found at www.energystar.gov/products/CFLspec.html.

ENERGY STAR[®] Compact Fluorescent Lamp Specification

Scope

This ENERGY STAR[®] compact fluorescent lamp specification covers the requirements for screw-based compact fluorescent lamps and lamp systems, comprising:

- (a) Single based compact fluorescent lamps with twin tube, triple tube, quad tube, square or multiple limb configurations and having integral electronic ballasts;
- (b) Circle and square lamps with a maximum diameter of 9 inches or a maximum side length of 8 inches and having electronic ballast adapters that are packaged with the lamp.
- (c) Single based compact fluorescent lamps with integral electronic ballasts and which have a translucent cover over the bare fluorescent tube. The cover may be globe, bullet, pear or other shape.
- (d) Single based compact fluorescent lamps with integral electronic ballasts and 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.

Definitions

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.

Rated voltage – The voltage marked on the lamp.

Rated wattage – The wattage marked on the lamp.

Rated supply frequency – The frequency marked on the lamp.

Initial performance values – The photometric and electrical characteristics at the end of the 100 hour aging period. The lamp operating position shall be base-up when measuring the initial performance values unless otherwise specified by the manufacturer.

Rated luminous flux – Initial lumen rating declared by the manufacturer.

Lumen maintenance – The luminous flux 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.

Average rated lamp life – The length of time declared by the manufacturer during which 50% of any large number of lamps reach the end of their individual lives.

Lamp color – The color characteristics of a lamp as defined by the color appearance and the color rendition.

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.

Color rendition – The effect that the spectral characteristics 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. 13.2

Starting time – The time needed after switching on for the lamp to start fully and remain lighted.

Run-up time – The time needed after switching on the supply for the lamp to reach 80% of its stabilized luminous flux.

Starting temperature – The minimum and maximum temperatures at which the lamp will reliably start.

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).

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 & 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 and the EMI requirements of the U.S. Federal Communications Commission.

Technical Specification

Performance Characteristics	ENERGY STAR Specification
Lamp Efficacy (The performance and electrical requirements of compact fluorescent lamps are taken at the end of the 100 hour aging period in accordance with ANSI C78.5.)	Lumens per watt (Based upon initial lumen data)
Scope (a) (b) <u>Bare lamps:</u> <15 watts ≥15 watts	45 60

Scope (c) <u>Covered lamps (except for reflector type):</u> ≤ 14 watts 15 - 19 watts 20 - 24 watts ≥ 25 watts	40 48 50 55
Scope (d) <u>Reflector type:</u> ≤ 19 watts ≥ 20 watts	33 40 For multi-level or dimmable systems, measurement shall be at the highest setting.
Burning Position	The lamp efficacy shall be the lesser of the lumens per watt measured in the base up and base down positions.
Lumen Depreciation	Per ANSI C78.5, Clause 4.10, The lumen depreciation at 40% of rated life shall not be less than 80%.
Starting Time	The time needed after switching on for the lamp to start fully and remain lighted, shall be an average of 1 second.
Color Quality	Color Rendering Index ≥ 80
Starting Temperature	Lamp package must declare 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
Run-up Time	Per ANSI C78.5, clause 3.11 and 4.8, shall not exceed 3 minutes.
Correlated Color Temperature	If a product has a color temperature that does not fall between 2700K and 3000K, the packaging should clearly describe the color of the product (cool or warm) and state the intended use for the product.
Electrical Requirements	
Input voltage and frequency	120 volts, 60 Hz
Power Factor	≥ 0.5
Electromagnetic Interference	Compliance with FCC 47 CFR Part 18 requirements for consumer limits
Operating Frequency	> 40 kHz
Transient Protection	Per ANSI/IEEE C62.41, Category A, 7 strikes
Base	Medium screw E26/24

Compatibility with Controls	Lamp package shall clearly state any known incompatibility with photo controls, dimmers or timing devices.
Durability	
Average Rated Lamp Life	6,000 hours, or greater as declared by the manufacturer
Warranty (applicable to normal residential use)	Either 12 months from date of purchase, or an equivalent, such as an "800" number or address for consumer complaint resolution.
Labeling	In English, or English with additional languages

Test Procedures

Performance Characteristic	Test Procedure for Compact Fluorescent (see note below)	Test Procedure for 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.

Certification

Manufacturers shall certify to the U.S. Department of Energy (DOE) that ENERGY STAR®-qualified compact fluorescent lamps and lamp systems have met the required safety acceptance and performance tests.

Testing

Manufacturers shall certify to DOE that the compact fluorescent lamps and lamp systems sold using the ENERGY STAR® label have met the ANSI/UL Standard 1993. ENERGY STAR®-qualified compact fluorescent lamps and lamp systems must be tested, listed, and labeled by an organization accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) or the American Association for Laboratory Accreditation (A2LA) as having the capability for safety testing, listing, and labeling of those products. These organizations include Canadian Standards Association (CSA), Underwriters Laboratories (UL), Intertek Testing Services Performance Division (formerly ETL Testing Laboratories), Factory Mutual (FM), and others. Manufacturers shall certify to DOE that the compact fluorescent lamps and lamp systems meet the manufacturers' declared performance criteria, and the minimum performance criteria contained in this ENERGY STAR® specification for the characteristics shown above (and within three percent of the minimum performance criteria contained in the specification for efficacy). The sample size required for compliance with the ENERGY STAR® performance criteria is 10 units per individual model (5 units in the base up position, and 5 units in the base down position). For new models, and/or models not previously tested, listed, or labeled, an 18-month delay will be allowed in the submission of data to DOE for ENERGY STAR® qualification that identifies the average rated lamp life and lumen depreciation. This specification shall be updated and revised to incorporate industry-accepted testing procedures for predicting lamp failure, average lifetime and other criteria as new industry standard test procedures become available. This specification will be reviewed with manufacturer and other interested parties' input no later than 1 year after the effective date to assess the need to revise accordingly.

APPENDIX B

INFORMATION CONCERNING SUBCONTRACTORS

Contractors may not subcontract any portion of this Program unless prior approval is obtained from an authorized SCE representative.

It is the policy of SCE to maximize the opportunity for women, minority and disabled veteran enterprises (WMDVBEs) to participate in its procurement of goods and services.

SCE uses its best efforts to increase procurement from MWDVBEs to achieve a combined annual goal of thirty percent or more by 1999. As a matter of policy, SCE does not use set asides, quotas or preferences to achieve its goals. WMDVBE status may not be taken into consideration in evaluating competitive bids or in making noncompetitive procurement awards.

SCE encourages prime contractors/subcontractors to utilize WMDVBEs as subcontractors. A contractor's or supplier's good faith efforts to subcontract with WMDVBEs is a factor that will be considered in SCE's bid evaluation process. While good faith efforts will be considered, a bidder's utilization of WMDVBE subcontractors/suppliers is not a factor that will be considered in the bid evaluation process.

Bidders shall bid in accordance with the provisions of the "Subcontracting Plan and Reporting Requirements," which by this reference, is incorporated and made a part of this request for proposal. Bidders may provide additional information demonstrating good faith efforts to subcontract with WMDVBEs.

SCE's Subcontracting Plan and Reporting Requirements are contained in Attachment "3." SCE requires its prime contractors to submit information on their respective subcontractors. The prime contractors are also responsible for reporting their expenditures with all subcontractors, including their WMDVBE subcontractors.

Intent to Bid Form (Optional)

Low Income Compact Fluorescent Lamp Purchase

Return to:

Southern California Edison
GO-3 1st Floor
2131 Walnut Grove Avenue
Rosemead, CA 91770
Attention: _____
E-mail Address: _____
Fax: _____

This Intent to Bid Form must be received at the above address no later than _____ to enable you to stay on the mailing list for responses to questions, revisions to the RFP, or announcement of informational meetings. This form is optional. Submitting this form does not commit the proposed bidder to complete the proposal process nor does the lack of an intent to bid response exclude the proposed bidder from presenting a bid. Submitting the form simply allows you to receive additional information from SCE, if any, which may be pertinent to your proposal.

Proposed Bidder:

Company or Organization: _____
Contact Name: _____
Contact Title: _____
Mailing Address: _____
Phone: _____
Fax: _____
E-mail Address of Contact Person: _____

This form may be returned to SCE by mail or facsimile. The requested information may also be provided to SCE by e-mail at: _____. SCE will acknowledge receipt of e-mails by return e-mail.

**Southern California Edison Company
Company Information Form**

FIRM _____ _____ Street Name _____ City State Zip Code	MAILING ADDRESS (IF DIFFERENT) _____ Street Name _____ City State Zip Code:
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Type of Ownership:
 Sole Proprietor _____ Partnership _____ Incorporation _____
 Corporation _____ Subsidiary _____ Date Business Started _____
 Affiliate _____ Non-Profit _____ Federal Tax ID No. _____
 Executive Officers _____
 Principal or Owner's Telephone No. _____
 Sales/Program Manager's Name: Telephone No. _____
 Office Administrator's Name: Telephone No. _____
 Emergency Contact's Name: Telephone No. _____
 Days and Hours of Operation: Fax No. _____

Dun & Bradstreet No.: _____
 Insurance Company Name: _____
 Rating: _____
 Commercial General Liability Coverage: \$ _____
 Cities with Business Licenses: _____

1. SMALL BUSINESS Yes No **Number of Employees** _____
DEFINITION: Your business must be independently owned and operated, must not be dominant in its field, and must meet Small Business Administration standards as to the number of its employees and/or dollar volume of its business.

2. WOMEN-OWNED Yes No
DEFINITION: Your business must be at least 51% owned by a woman or women who exercise the power to make policy decisions and who are actively involved in the day-to-day management of the business.

3. MINORITY-OWNED Yes No
DEFINITION: Your business must be at least 51% owned by one or more minority U.S. citizens. In the case of any publicly owned business, at least 52% of the stock must be owned by one or more of such individuals; and its management and daily operations must be controlled by one or more such individuals.
 If YES, mark the percentage (%) owned by U.S. Citizens of the following group(s):
 ____% ASIAN/PACIFIC AMERICAN ____% BLACK AMERICAN ____% NATIVE AMERICAN
 (Asian, Asian- Indian, Polynesian, & Filipino) (American Indian, Eskimo, Aleut & Native American)
 ____% HISPANIC AMERICAN ____% OTHER: Specify _____
 Designated pursuant to Section 8 (A) of the Small Business Act

ARE YOUR EMPLOYEES UNION REPRESENTED? <input type="checkbox"/> YES <input type="checkbox"/> NO	NAME OF UNION(S) _____	DATE(S) CONTRACTS EXPIRE _____
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DECLARATION

By evidence of my signature below, I hereby certify that to the best of my knowledge and belief, that the information contained in this prequalification form is true, correct and complete. I further agree to inform Southern California Edison Company immediately of any changes to the information contained herein, particularly changes to ownership, controlling interest and key personnel.

BY _____
(Signature of authorized representative) Title Date

SOUTHERN CALIFORNIA EDISON
 LOW INCOME COMPACT FLUORESCENT LAMP
 2000 PROGRAM YEAR BID WORKSHEET

Company: _____

Contact: _____

Phone: _____

	Model	Wattage	Lumens	Rated Lamp Life	CFL Dimensions	Package Quantities	Minimum Shipment	Unit Price
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60 watt equivalent

1								
2								
3								
4								
5								

75 watt equivalent

6								
7								
8								
9								
10								

100 watt equivalent

11								
12								
13								
14								
15								

Porchlight and CFL: 60 watt equivalent

16								
17								
18								
19								
20								

Please use a separate sheet for explanations.

SUBCONTRACTING PLAN AND REPORTING REQUIREMENTS

I. Bidder Subcontracting Plan Requirements

- A. While it is not a requirement to subcontract any portion of work contained in this Proposal Request, whether or not a bidder indicates the use of subcontractors or subsuppliers in its proposal, the Bidder's proposal **MUST INCLUDE** the following:
 - 1. A completed "SUBCONTRACTING AND REPORTING PLAN."
- B. When completing the "SUBCONTRACTING AND REPORTING PLAN," bidder shall assume 100% of the work will be awarded. Upon notification by EDISON of an award for less than 100% of the Proposal Request requirements, the selected bidder(s) shall submit within ten (10)days of such notification, an amended "SUBCONTRACTING AND REPORTING PLAN" reflecting the applicable reductions.
- C. EDISON's goals are to award thirty percent (30%) of its purchases to Women and Minority Business Enterprises and one point five percent (1.5%) of its purchases to Service-Disabled Veteran Business Enterprises (collectively WMDVBEs). A Supplier's good faith efforts to subcontract with WMDVBEs is a factor that will be considered in the bid evaluation process. The "SUBCONTRACTING AND REPORTING PLAN" will be used as a factor in evaluating a bidder's good faith efforts to subcontract with WMDVBEs. Other information provided with the bidder in its proposal will also be considered.
- D. Should those WMDVBEs identified in the bidder's proposal not be available at the commencement of work, EDISON expects the successful bidder to attempt to subcontract with WMDVBEs to the same extent as identified in its proposal.
- E. If the bidder is currently verified as a WMDVBE and has not submitted certification to Edison, the Bidder should provide a copy of the documentation that granted such status. The documentation shall clearly show the verifying agency and expiration date.
 - 1. Verification as a WMDVBE does not exempt bidder from Edison's consideration of its good faith efforts to subcontract with WMDVBEs.
 - 2. It is Edison's policy that the WMDVBE status of bidders may not be taken into consideration in the evaluation of bids.

II. Reporting Requirements

During the effective period of the purchase order, contractor shall provide, in a quarterly

basis and again upon Edison's final acceptance of the work, an updated "SUBCONTRACTING AND REPORTING PLAN" reflecting the actual payments made to the subcontractors/subsuppliers. **Such reports shall be provided as requested in the purchase order.**

SUBCONTRACTING AND REPORTING PLAN

Name of Contractor: _____ Report Date: _____

Address: _____ Purchase Order No: _____

_____ Contractors Job No: _____

Telephone: _____ Percent Complete: _____

Preparer's Name: _____
 (Authorized Contractor/Supplier Name)

	SUBCONTRACTING/SUBSUPPLIER NAME		WMDVBE	ORIGINAL PROPOSED	ACTUAL
WORK DESCRIPTION	CONTACT PERSON & TELEPHONE NUMBER	TAX ID. NO.	CODE*	EXPENDITURES	PAYMENT
		TOTAL	AMOUNTS	\$	\$

INSTRUCTIONS

- (1) Complete columns 1 through 5 and return this form with your bid response.
- (2) Quarterly and again upon completion of the work by Edison, complete column 6 and send a copy of this form to:

Subcontracting Administrator
Southern California Edison Company
P.O. Box 800 – Room 103
Rosemead, CA 91770

DEFINITIONS

- WMBE: a woman-owned or minority-owned business enterprise; under these rules, the woman and/or minorities owning such an enterprise should be either U.S. citizens or legal aliens with permanent residence status in the United States.
- WBE: Woman Business Enterprise: A business that is at least 51% owned by a woman; or, in the case of any publicly owned business, at least 51% of the stock of which is owned by one or more women, and whose management and daily business operations are controlled by one or more women.
- MBE: Minority Business Enterprise: A business enterprise that is at least 51% owned by a minority individual or group, or in case of any publicly owned business, at least 51% of the stock of which is owned by one or more minority groups, and whose management and daily business operations are controlled by one or more of those individuals. The contracting utility shall presume that minority includes, but is not limited to Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, and other groups.
- DVBE: Disabled Veteran Business Enterprise: A business enterprise that is at least 51% owned by disabled veteran individual or group; or in case of any publicly owned business, at least 51% of the stock of which is owned by one or more disabled veterans, and whose management and daily business operations are controlled by one or more of those individuals.
- CONTROL: Exercising the power to make policy decisions.
- OPERATE: Being actively involved in the day-to-day management and not merely acting as officers or directors.

WMDVBE IDENTIFICATION CODES

- | | |
|-------------------------|------------------------------|
| 1 – Black American | 6 – Filipino American |
| 2 – Asian American | 7 – Polynesian American |
| 3 – Native American | 8 – Other |
| 4 – Hispanic American | 9 – Service Disabled Veteran |
| 5 – Non-Minority Female | |

- African Americans: Persons having origin in any black racial groups of Africa.
- Asian Americans: Persons having origin in Asia or the Indian subcontinent, including, but not limited to, persons Japan, China, Vietnam, Korea, Samoa, Guam, the U.S. Trust Territories of the Pacific, Northern Marianas, Laos, Cambodia, Taiwan, India, Pakistan, and Bangladesh.
- Filipinos: Persons having origin in the people of the Philippine Islands.
- Latinos: All persons of Mexican, Puerto Rican, Cuban, South or Central American, Caribbean, and other Spanish culture or origin.
- Native Americans: Persons having origin in any of the original people of North American or the Hawaiian Islands, in particular American Indians, Eskimos, Aleuts, and Native Hawaiians.
- DVBE: A Veteran of the Military, Naval or Air Service of the United States with a Service-connected disability who is a resident of the State of California.