### **BUILDING TECHNOLOGIES PROGRAM**





Energy Conservation Program for Consumer Products and Commercial and Industrial Equipment

NEMA Lighting
CCE Overview and Update
May 25, 2011

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# Manufacturer Explanation



### A Manufacturer

- Is the domestic manufacturer or an importer.
- May produce equipment at multiple facilities in various locations with the same model characteristics.
- May group individual models into basic models at the manufacturer's discretion.
- May elect to use a third-party (e.g., certified laboratory) for testing and certification purposes.
- Must determine certified ratings through testing.
- Is responsible for certification to the Department.

## Importer Explanation



A manufacturer produces equipment at multiple facilities and imports all of the equipment through the same entity.

The importer is the manufacturer.
 Units of a model from multiple locations can be grouped into same basic model and can be reported on one certification report as one basic model.

A manufacturer produces equipment at multiple facilities and utilizes different importers.

 Each importer is a manufacturer, and each importer has an independent responsibility to certify. Units from multiple locations can be grouped only to the extent that they are imported by one importer. The OEM may submit the certification as a third party representative on behalf of multiple importers.

## **Basic Model Explanation**



- May contain multiple models/model numbers.
- Is manufactured by a single manufacturer, although it may be distributed under different brand names.
- Is made up of models that contain the same primary energy source (i.e., electric, gas).

### A Basic Model

- Is made up of models that have essentially identical electrical, physical and functional characteristics that affect energy consumption and/or efficiency.
- Of general service fluorescent lamps, general service incandescent lamps and incandescent reflector lamps have essentially identical light output and electrical characteristics (lm/W and CRI).
- May not contain models from multiple product classes.
- Can be made up of only one model. There is no requirement for multiple models within a basic model.

# How To Get Certified Ratings



Test the Minimum Number of Units of a Basic Model Specified in Sections 429.14 to 429.54 Using the DOE Test Procedure

(Maximum Number of Units is at the Discretion of the Manufacturer)

### **Determine which Federal Conservation Standards Apply to the Product**

Consumer products: 430.32 Commercial equipment: 431

### Calculate the Product Specific Certification Statistics, 429.14 to 429.54

Consumer 430.32, Commercial 431

Sample Mean (x)

Upper Confidence Limit (UCL)

Lower Confidence Limit (LCL)

### **Determine Minimum and Maximum Rating Values**

Compare Mean and UCL or LCL to Consumption or Efficiency Standard Per Regulations

**Generate Certified Rating Between Minimum and Maximum Values** 

## Sampling Requirements



#### For each basic model:

- GSFL, IRL, GSIL must test at least 21 units; 3 units per month of production for at least 7 months (429.27).
- Fluorescent lamp ballasts must test at least 4 units (429.26).
- Medium base CFL (bare or covered no reflector) (429.35)
  - Must test at least 5 units for efficacy, 1000-hr lumen maintenance and lumen maintenance
  - Must test at least 6 unique units for rapid cycle stress
  - Must test at least 10 units for average rated lamp life
- Candelabra base lamps, Intermediate base incandescent lamps must test at least 21 units; 3 units per month of production for at least 7 months (429.40).
- Metal halide lamp ballasts/fixtures must test at least 4 units (429.54)
- All other products sample "of a sufficient size" but not less than 2 (429.11)

# Lab Requirements



- GSFL, IRL, GSIL and medium base CFL must be tested at NVLAPaccredited lab or at lab accredited by organization recognized by NVLAP (430.27).
- Manufacturers may test at their own labs if accredited. (430.27)

## Certification Requirements



- Effective date for compliance with certification provisions is July 5, 2011, for any model not previously certified with DOE.
  - This includes those models entered into commerce on or after July 5<sup>th</sup> and those currently offered on the market that were not previously certified.
- Only electronic submission accepted. Submit online at <a href="https://www.regulations.doe.gov/ccms">https://www.regulations.doe.gov/ccms</a> using product-specific, Excel templates provided by DOE.
- Submit certification report before distribution in commerce for all new models.
- Annual submittal of carry-over basic models on or before the 1<sup>st</sup> of the month specified in the annual certification table (429.12(d)).
- No additional certification testing required for annual submission.
- During the year, recertify if the redesign of an existing model increases energy consumption or decreases energy efficiency resulting in re-rating.

### **Enforcement Overview**



DOE Office of the General Counsel, Office of Enforcement	Enforces the energy conservation, water conservation, and design standards.
Certification	<ul> <li>Seeking civil penalties for failure to certify and improper certification.</li> <li>Certification must be based on testing in accordance with the applicable test procedure and sampling plan or a valid AEDM/ARM.</li> </ul>
Standards	<ul> <li>Seeking civil penalties for distribution of products that do not meet Federal standards.</li> <li>Testing products suspected of failing to meet Federal standards.</li> </ul>

## **Enforcement Tools**



Subpoena	<ul> <li>Failure to meet applicable efficiency standards and certification violations.</li> <li>Penalties for violations of standards calculated per unit offered for distribution in commerce.</li> <li>Penalties for certification violations calculated per day for each basic model improperly certified or not certified.</li> <li>DOE has issued guidance on the imposition of civil penalties.</li> <li>DOE issues a subpoena in order to obtain test data and to obtain information regarding distribution of regulated products.</li> </ul>
Noncompliance Determination	DOE makes a determination of noncompliance based on certification information, on test data provided by a manufacturer, or on test data obtained through DOE testing.
Injunction	DOE may seek a court order to ensure compliance with any regulatory requirement.

Notice of Proposed Rulemaking on Alternative Methods of Determining Efficiency, Tentative Fall 2011

#### Issues under consideration:

- Current procedures used by industry to rate lowvolume, custom built commercial equipment;
- Current applications of DOE's AEDM/ARM procedures;
- Products to which AEDM/ARM should apply;
- Data to demonstrate ability of AEDM/ARM to estimate energy efficiency/consumption; and
- Procedures governing substantiation and verification of AEDMs and ARMs.

### Questions / Information



Submit a Question:	<ul> <li>DOE Test Procedure Website:         <a href="http://www.eere.energy.gov/guidance/default.aspx?pid=2&amp;spid=1">http://www.eere.energy.gov/guidance/default.aspx?pid=2&amp;spid=1</a></li> <li>Ashley Armstrong: <a href="mailto:Ashley.Armstrong@EE.Doe.Gov">Ashley.Armstrong@EE.Doe.Gov</a></li> </ul>
Request a Test Procedure Waiver:	<ul> <li>DOE's regulations allow manufacturers to apply for a waiver when a manufacturer determines that a given basic model contains one or more design features that prevent testing in accordance with DOE's test procedure.</li> <li>Email: AS_Waiver_Requests@ee.doe.gov</li> </ul>
File a Complaint:	Email: <a href="mailto:energyefficiencyenforcement@hq.doe.gov.">energyefficiencyenforcement@hq.doe.gov.</a> The Office of Enforcement will protect the identity of complainants to the maximum extent permitted by law.
DOE's Certification, Compliance, and Enforcement Website:	http://www.eere.energy.gov/buildings/appliance_standards/certification_n_enforcement.html
DOE's Online Certification System:	https://www.regulations.doe.gov/ccms/
Enforcement Information:	http://gc.doe.gov/energy_efficiency_enforcement.htm