

## DOCKETED

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*Comment Received From: Jeffrey Steuben*

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**IOU Response to Comments to CEC Staff Report on Air Filter Labeling**

*Additional submitted attachment is included below.*

# Air Filter Labeling

Codes and Standards Enhancement (CASE) Initiative  
For PY 2013: Title 20 Standards Development

Response to comments to  
CEC Staff Report for  
**Air Filter Labeling**

Docket #15-AAER-1  
February 6<sup>th</sup>, 2015

Prepared for:



PACIFIC GAS & ELECTRIC  
COMPANY



SOUTHERN CALIFORNIA  
EDISON



SAN DIEGO GAS AND  
ELECTRIC



SOUTHERN CALIFORNIA  
GAS COMPANY

Prepared by:

Jeff Steuben, ENERGY SOLUTIONS  
Marshall Hunt, P.E., PACIFIC GAS & ELECTRIC COMPANY  
Jay Madden, SOUTHERN CALIFORNIA EDISON

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## 1 Background

On July 29<sup>th</sup>, 2013, the California Investor Owned Utilities (Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas (SCG), San Diego Gas & Electric (SDG&E)), herein referred to as the IOUs, submitted a Codes and Standards Enhancement (CASE) report for air filter labeling. On May 6<sup>th</sup>, 2014 the California Energy Commission (CEC) hosted a workshop to discuss its staff report and solicit feedback from stakeholders. Below are the IOUs responses to industry comments submitted to CEC staff regarding their report.

## 2 Response to Comments from 3M

### 1. The maximum allowable pressure drop should be consistent with actual filter performance.

The CEC's staff report for this Title 20 measure does not establish minimum performance values for air filters, but merely creates labeling requirements to provide information to the consumer.

### 2. Air velocity for MERV rating must be specified in the filter label.

The IOUs recognize that face velocity plays an important role in the measurement of the pressure drop of filters, which is why the IOU CASE Report initially recommended a label which included tested pressure drop values at nominal 300 and 500 feet per minute (FPM), which is often represented as 295 and 492 FPM (1.5 m/s and 2.5 m/s respectively). However, because HVAC system designers must choose a filter based on the HVAC system airflow rate, cubic feet per minute (CFM) was identified as the preferred metric for the label in the CEC staff report. In addition, this is the approach taken by AHRI Standard 680-2009.

### 3. Allowance for testing one filter size and scaling off of that for other sizes of the same grade.

The IOUs agree with this comment. Because identical filter medium is used for multiple sized products, testing standard sizes should suffice. The IOUs recommend that the CEC define which sizes are acceptable and how many sizes should be tested to comply with the labeling effort.

### 4. Allowance for printing or affixing the label on the filter frame or pleat pack.

The IOUs feel that this is an acceptable proposal that meets the intent of the labeling measure. IOUs recommend that the CEC update proposed measure language to allow for alternate label placement for products which do not have a frame permanently affixed to the filter medium.

## 5. Guidance for statistical procedures.

Statistical procedures are included in AHRI 680 – 2009, Section 6.3 *Tolerances*. This section covers what level of accuracy is required.

**6.3 Tolerances.** Published Ratings shall be such that any sample(s), not exceeding five samples, selected at random and tested in accordance with this standard, shall result in average tested values with an allowance for testing as follows:

**6.3.1** The Initial Resistance shall not exceed the published resistance by more than 10% or 0.02 in wc, whichever is greater.

**6.3.2** Particle Size Efficiency(s) shall not fall below the published efficiency(s) by more than 2% points.

**6.3.3** The Dust Holding Capacity shall be not fall below the published capacity by more than 10%.

**6.3.4** The input power shall not exceed the published input power by more than 5%.

**6.3.5** The Rated Final Resistance shall not exceed the published resistance by more than 10% or 0.02 in wc, whichever is greater.

## 6. Using one test method (ASHRAE 52.2) to simplify/standardize the testing and level the playing field.

Under existing Title 24 language, both ASHRAE 52.2 and AHRI 680 are specified as acceptable test methods, and this Title 20 measure also retains both methods. As described in the comment letter from AHRI, ASHRAE 52.2 is not able to test electronic or electrostatic air filters due to the use of conductive carbon loading dust. As such, the IOUs disagree with this comment from 3M and believe that both test methods should be retained to capture data on multiple filter types.

ASHRAE 52.2 language excerpt (Forward, page 2):

*Some air cleaners, such as externally powered electrostatic precipitators (also known as electronic air cleaners), may not be compatible with the loading dust used in this test method.*

## 3 Response to Comments from AHRI

### 1. Instead of labeling, manufacturers should be allowed to report filter performance values on their website

The IOUs feel that allowing manufacturers to report values online does not meet the intent of the Title 20 measure. A principle of Title 20 Test and List requirements ensure that important product performance information is listed in a standardized format and is declared, under penalty of perjury, to be true by the manufacturer. (Section 1606.(a)(3)(E)(4)(A)1) Purchasers of replacement air filters are unlikely to conduct online research, and instead must rely on the information presented to them at the time of purchase. A common scenario is that a customer removes the filter and replaces it with the same size and type of filter based on what is printed on the disposable filter making it necessary that the labeling be on the filter. Allowing manufacturers to each report their performance values inhibits consumers from making informed choices because the information must be collected from multiple sources to compare different manufacturer filter options.

## 2. ASHRAE 52.2 and AHRI 680 do not produce comparable MERV values

In order to resolve the differences in the two possible test methods, the IOUs recommend that the CEC provide specific definition to the determination of MERV values derived from AHRI 680 – 2009 by adding a footnote to Table X as shown below.

### **TABLE X Excerpt**

Note: When AHRI 680 – 2009 is used, MERV will be determined using the following table:

MERV Calculated	Particle Size Efficiency		
	Size 3.0 to 10.0 µm	Size 1.0 to 3.0 µm	Size 0.3 to 1.0 µm
1	<20		
2	<20		
3	<20		
4	<20		
5	20 to 34		
6	35 to 49		
7	50 to 69		
8	≥70		
9	≥85	<50	
10	≥85	50 to 64	
11	≥85	65 to 79	
12	≥90	80 to 89	
13	≥90	≥90	<75
14	≥90	≥90	76 to 84
15	≥90	≥90	85 to 94
16	≥95	≥95	≥95

## 3. Electronic and electrostatic filters cannot be tested using ASHRAE 52.2

The IOUs concur with this assessment, and recommend retaining the existing proposed measure language which allows for testing of filters using ASHRAE 52.2 or AHRI 680 – 2009, which solves this concern.