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January 28, 2015

To: Commissioner Andrew McAllister
California Energy Commission
Dockets Office, MS-4
1516 Ninth Street
Sacramento, CA 95814-5512

Docket: 14-BSTD-01

From: Owens Corning Insulating Systems, LLC

RE: Draft 2016 Building Energy Efficiency Standards

Dear Commissioner McAllister:

Owens Corning is the leading supplier of insulation for flexible ducts installed in residential and commercial construction. Flexible ductwork is a critical and cost effective component of the HVAC systems in new and existing construction. Owens Corning strongly objects to JCEEP proposed amendments to the draft 2016 Building Energy Efficiency Standards (BEES) to limit the use of flexible duct to no more than five feet in construction. JCEEP's reasons for this limitation on flexible ducts were pressure loss due to compression and poor installation quality. Owens Corning acknowledges that any building product can be installed poorly. The flexible duct industry has developed the Air Diffusion Council's Flexible Duct Performance & Installation Standards, now in its 5th Edition, to set the standard for quality, flexible duct installations. This quality installation guideline is similar to the California Energy Commission's (CEC) efforts to improve the building installation standards and quality installation inspections and diagnostics for properly installed HVAC systems.

To combat poor field installations of HVAC systems the CEC in cooperation with participating building product suppliers have developed strong installation guidelines as found in the CEC's 2013 Residential Manual Section 4.4.1 Mandatory Measures for Air Distribution System Ducts, Plenums and Fans. This section of the Residential Manual is exemplary of how California's building standards have evolved to improve the performance of HVAC systems.

To ensure system performance the 2013 BEES require ducted central forced air HVAC systems to meet the mandatory requirements of >350 CFM/ton air flow and fan efficacy of $\leq$0.58 W/CFM. These HVAC system requirements must be 100% tested by the installing subcontractor. In addition, these mandatory performance requirements are then tested by a CEC certified Home Energy Rater (HERS) using CEC approved sampling protocols for quality control. These mandatory performance requirements of the HVAC system can only be met if the system is performing to sound design specifications and is a quality installation. As noted above the vast majority of HVAC systems that pass these rigorous quality standards use flexible ducts.

Owens Corning strongly objects to JCEEP's proposal that disregards the industry's and the CEC's HVAC quality installation guidelines and quality test procedures. Limiting flexible ducts in residential and small commercial buildings to five feet maximum installed length is arbitrary and capricious.

Owens Corning offers their continued support to the CEC for approval of fair and cost-effective BEES. Owens Corning supports the building industry in their choice to use flexible ducts which when installed to the CEC

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requirements are the most cost effective and efficient ductwork for HVAC systems. Owens Corning supports the development of the 2016 Standards without any arbitrary restrictions on flexible ducts.

Respectfully,

Wendy Sabo
National Account Sales Manager, FDM

cc: Rob Oglesby, CEC Executive Director
Dave Ashuckian, CEC Deputy Director of the Efficiency & Renewable Energy Division
Patrick Saxton, CEC Advisor to Commissioner McAllister
Maziar Shirakh, CEC lead staff on 2016 Standards
Robert E. Raymer, CBIA Technical Director

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