

## DOCKETED

<b>Docket Number:</b>	17-BSTD-01
<b>Project Title:</b>	2019 Building Energy Efficiency Standards PreRulemaking
<b>TN #:</b>	221555
<b>Document Title:</b>	Proposed Filtration Requirements for HERVs
<b>Description:</b>	N/A
<b>Filer:</b>	System
<b>Organization:</b>	Newport Ventures
<b>Submitter Role:</b>	Public
<b>Submission Date:</b>	10/20/2017 8:24:44 AM
<b>Docketed Date:</b>	10/20/2017

*Comment Received From: Mike Moore*

*Submitted On: 10/20/2017*

*Docket Number: 17-BSTD-01*

## **Proposed Filtration Requirements for H/ERVs**

*Additional submitted attachment is included below.*



October 20, 2017

California Energy Commission  
1516 Ninth Street, MS-34  
Sacramento, CA 95814

Re: Docket 17-BSTD-01, Proposed Filtration Requirements for H/ERVs, Section 150.0(m)12 and Section 120.1(b)1

Dear CEC Staff and CASE Initiative Team:

This comment proposes changes to the proposed filtration requirements for dwelling unit H/ERVs

Section 150.0(m)12Aiii proposes new filtration requirements for HERVs. While manufacturers such as Broan and Venmar are generally supportive of filtration requirements for systems supplying outdoor air, there are a few concerns that should be raised at this time. Please note that these comments apply to both Section 150.0(m)12 and 120.1(b)1, though references are only provided to Section 150.0(m)12 for simplicity.

- 1. System Design and Location, filter location:** Section 150.0(m)12Bi requires the MERV 13 filter to be located upstream of any thermal conditioning component. The language does not clarify whether an H/ERV would be considered to have a thermal conditioning component; please clarify. If so, there should be an exception here for H/ERVs, which can achieve better equipment performance by providing a basic washable filter upstream of the heat/energy exchanger core and also providing a higher efficiency filter (e.g., MERV 13) downstream of the heat/energy exchanger core (but still prior to introducing the air into the living space). Because such a configuration would provide better performance, it should be permitted.
- 2. System Design and Location, filter depth:** Section 150.0(m)12Bv requires filters to be at least 2” deep when installed with “mechanical space conditioning systems that supply air to an occupiable space through ductwork exceeding 10 feet”. The language does not clarify whether an H/ERV is considered a “space conditioning system”; please clarify. Also, rather than set a minimum prescriptive depth, please consider using a minimum performance specification, which could be addressed in Section 150.0(m)12D, Air Filter Pressure Drop. Setting performance targets versus prescriptive targets encourages innovation and cost savings while achieving the same objective.
- 3. System Design and Location, “readily accessible”:** Section 150.0(m)12Biii requires air filters to be readily accessible. Readily accessible is defined as follows: “capable of being reached quickly for operation, repair or inspection, without requiring climbing or removing obstacles, or resorting to access equipment”. By this definition, a lamp in a ceiling-mounted luminaire would not be considered “readily accessible”, nor would a filter in a ceiling-mounted H/ERV. Enforcing the requirement for readily accessible H/ERV filters could be very costly by adding to complexity/space requirements of mechanical rooms and would place H/ERVs at a disadvantage to inferior ventilation systems that do not require filtration (i.e., exhaust only systems). Please consider adding an exception for ceiling-mounted H/ERVs.
- 4. Air Filter Product Labeling:** Section 150.0(m)12E establishes labeling requirements for air filters. As described in bullet 1, above, H/ERVs will often use two filters: one minimum efficiency, washable/reusable filter that is meant to arrest large particles upstream of the heat/energy exchanger core, and a higher efficiency disposable filter downstream of the heat/energy exchanger core (but still

upstream of the outdoor air termination into the living space) that is used to filter particles that would otherwise be harmful to health. While there is value to labeling the higher efficiency filter to ensure compliance with minimum filtration requirements for occupant health and system performance, there is no need to test and label the minimally restrictive lower-performance filter. Please add an exception for such ancillary, reusable filters used in H/ERV systems.

Thanks for the opportunity to comment.

Sincerely,

A handwritten signature in black ink that reads "Mike Moore". The signature is written in a cursive, slightly slanted style.

Mike Moore, P.E.  
ASHRAE 62.2 Indoor Air Quality Subcommittee Chair