

**DOCKETED**

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<b>Project Title:</b>	2022 Energy Code Pre-Rulemaking
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<b>Document Title:</b>	QC Manufacturing, Inc. Comments - Removal of WHF HERS Test for 2022 Code
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*Comment Received From: QC Manufacturing, Inc.  
Submitted On: 7/2/2020  
Docket Number: 19-BSTD-03*

**Removal of WHF HERS Test for 2022 Code**

*Additional submitted attachment is included below.*

July 1, 2020

Mr. Todd Ferris  
California Energy Commission  
Docket Unit, MS-4  
1516 Ninth Street  
Sacramento, CA 95814-5512

**Re: Docket 19-BSTD-03 HERS Verifications for Whole House Fans in 2022 Code**

Submitted by: Andy Llorca / Dane Stevenson  
QC Manufacturing, Inc.

The following comments are submitted in order to voice our comments and concerns regarding 2022 code HERS testing protocol and procedures for whole house fans. WE are requesting the removal of the inaccurate HERS protocol listed under RA3.9.4.1.1 WHF Airflow Rate Measurement Using Pressure Matching and Fan Flowmeter.

We are in agreement that this front door protocol should be removed for 2022, this test is undeniably inaccurate for larger fans over 2000 cfm as shown during our field testing with the engineers who produced this protocol, the engineers at the CEC, and the CalCerts staff.

This test has been proven to be incorrect by 400-800cfm on a 4400 cfm fan test in the field test home yielding results which are greater than +/-9% accurate. This exceeds that Title24 part 6 requirement of +/-7% accuracy of current testing equipment, the HERS protocol should be kept to the same accuracy standards, otherwise we have an inspection that could yield results +/-16% accuracy, which is a substantial CFM margin of error when working with 5000CFM+ products.

In addition, the cause of inaccuracies of this test pertain to leakage in the homes from the attic back into the home. It is not logical or justified to have whole house fan manufacturers be responsible for the ceiling leakage in a home, which exacerbates the erroneous CFM values reported with this HERS protocol. With mechanical trades installing the product, electricians wiring the system, and the roofers installing adequate ventilation, it is unreasonable to expect a 4<sup>th</sup> trade to get involved in the installation of WHF HERS testing protocol, as there are no current standards or requirements dictating that attic to home leakage should be sealed to any degree that can withstand the pressures applied during this HERS protocol.

We are strongly recommending that the CEC remove this protocol, as both the passive flow hood and powered flow hood protocols are substantially more accurate and this test will only cause widespread confusion in the industry if left in the standards for compliance verification.

Should you have any questions, please do not hesitate to contact me via email at [andy.llorca@qc-mfg.com](mailto:andy.llorca@qc-mfg.com).

Sincerely,

Andy Llorca

QC Manufacturing, Inc.