

Building Regulations and Energy Performance Division
Ministry of Housing, Communities and Local Government
2nd Floor SW, Fry Building
2 Marsham Street
London
SW1P 4DF
United Kingdom

18/12/2018

Dear Secretary of State,

I write to request that the low pressure Pulse air permeability test method is recognised as an approved air permeability test procedure in accordance with Regulation 43 of the Building Regulations.

Further to our dialogue over the past 18 months in relation to the new method, I am delighted to provide herein a series of studies that show the Pulse test to be accurate, repeatable and able to readily harmonise with the incumbent 50 Pa blower door fan method that is already widely used by the industry.

A programme of intensive field work and third party scrutiny has culminated in the following documents:

- **Report 1 - Independent recommendation report** – following the request of the Department, this short independent report by Cambridge Architectural Research draws conclusions and a series of recommendations based on all of the documents being made available here.
- **Report 2 - National Physics Laboratory – Pulse System Assessment Report** – a back to basics independent scientific review of the fundamental principles behind the Pulse method.
- **Report 3 - BEIS sponsored field trail report** – during 2018 BTS have tested 108 homes in order to comprehensively assess the performance of Pulse and compare its results with the incumbent door fan method.
- **Report 4 - BRE Global Environmental Technology Verification (ETV) Report** – the summary conclusions drawn from a thorough review of the Pulse test procedure, instrumentation and supporting documentation.
- **Report 5 - BRE Lab Testing Report** – findings from side-by-side Pulse and door fan testing in a controlled lab environment.

Originally developed by a team of researchers at the University of Nottingham, the true innovation is in the method's ability to measure air leakage characteristics at pressures that are representative of 'real world' conditions. By measuring leakage directly at 4 Pa, it is our strong belief that we as an industry stand to better understand the true air leakage characteristics of buildings. This can in turn better inform building/retrofit design, ventilation system specification and improved indoor air quality.

I trust this submission of evidence meets your requirements and I look forward to working with you over the coming weeks in answering any further queries you may have.

Yours Sincerely,



Luke Smith
Managing Director
Build Test Solutions Ltd