

Change Note		CN-062
Change to: Test Regime		
Description: Addition of new DHW heat load maximum output test		
References: Test Regime		
Change originator: SC		Date of request: 31/01/2022
Rev: 01	Date authored: 31/01/2022	Proposed change to assumption: N

1. Proposed Approach

A new test is proposed to measure the maximum DHW output of a HIU. The test consists of a series of hot water draws starting from 0.15 l/s and increasing in steps of 0.03 l/s up to 0.42 l/s (approx. 5 kW steps from 25 kW up to 70 kW). The HIU will be rated at the final step where it was successful in maintaining hot water output above 45 °C. The test can be carried out in the high or low primary temperature regimes with a target DHW output temperature of 50 °C.

The test will also have a secondary purpose of measuring the pressure loss across the HIU at the different flow rates. This will help establish the minimum viable inlet DHW pressure for the HIU to function as expected.

2. Rationale (underlying basis for the change)

To ensure fair reporting of HIU DHW output so that consultants specifying HIUs can be fully informed of an HIU's output capabilities.

45°C chosen as the threshold temperature as it the temperature a resident will perceive the DHW as "hot". It is the reference temperature for DHW delivery times in CP1 2020 (i.e. delivery time of DHW must be 45°C within 45 seconds).

3. Impact of change (e.g. implications for test rig)

Additional test to undertake within the test procedure, resulting in additional time for test houses.

Results are to be reported in tabular and graphical formats.

Test rigs must be able to control to a series of step changes of DHW flow (0.03 l/s) every 60 seconds up to a maximum of 0.42 l/s.

Evaluation of change			
Date evaluated: 15/02/22	Those present: BESA HIU Technical Committee	Additional info required?: No	Modification to proposed approach?: No
Details: Rationale and methodology explained in TN-016			
Signed off: Yes			