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**Assumption Change Control Sheet**

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| **Test** | 2a, 2b. DHW dynamic test |
| **Assumption** | 20. DHW dynamic draw off duration and duration of pauses |

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| Change Originator | Martin Crane |
| **Change Request No.** | 038 |
| Date of Request | 20/08/2020 |
| Proposed Change to Assumption? | N |

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| Proposed Approach  Retain DHW dynamic test pattern:  For the DHW outputs used in the Test, each flow (0.06 l/s (10kW), 0.01 l/s (17kW) and 0.13 l/s (22kW)) is for 180 seconds with a 180 second pause in between. The pattern of flows is shown below.    The return temperature during these 180 second periods are used in the VWART calculation |
| Rationale (underlying basis for assumption)  See Technical Note 015.  Summary of considerations:   * 180 seconds between DHW draw of is long enough for the HIU to stabilise after the DHW demand, giving time for the DH flow rate to drop to zero. * Data from recent tests show that the DH return temperatures stabilsies quickly after the change in DHW flow rate, so increasing or reducing the length of DHW draw off would have little impact on the average return temperatures – which are the inputs to the VWART calculation.   Current Test methodology provides what seems to be representative data for the VWART calculation and the graphed results show the effectiveness of the HIU control. The Test methodology provides a check that the HIU does not generate high DHW temperature spikes. |
| Impact of Change (e.g. implications for test rig)  N/A |

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| CHANGE EVALUATION | |
| Date Evaluated | 22/09/2020 |
| Additional Information Required? | N |
| Modification to Proposed Approach? | N |
| Details | |
| Signed-off | Y |