11 September 2017

ENERGY STAR V3.0 Imaging Equipment Draft 1 Test Procedure – Comments from the European Commission

This document provides comments from the European Commission on the draft 1 ENERGY STAR v3.0 imaging equipment test procedure.

Network Activity Test Method Revision

We support the US EPA move to include network activity under test of sleep mode. We are unclear about the potential impacts of the different "Acceptable Software Programs" could have on the test and how the results will be used in the ENERGY STAR qualification. We would ALSO like to understand if the US EPA has undertaken any testing to identify if using different "Acceptable Software Programs" has an impact on overall TEC if the consumption during this test will be included in the TEC calculation.

International Standards for Imaging Speed

We support the inclusion of international standards relating to the measurement of imaging speed. It is clear from the graph that the US EPA provide on webinar slide 24 that some manufacturer's reported imaging speeds are significantly higher than imaging speeds determined using the ISO/IEC standards. Over-estimation of imaging speed can provide a significant advantage by increasing the allowable energy use. As such, formal imaging speed standards need to be referenced in the ENERGY STAR v3.0 test procedure.

Paper Usage Assumption

We agree that paper usage may have reduced in general and so it may be suitable to review the N_{jobs} table. We do not have any immediate data on the relationship between product imaging speed and paper use. We recognise that some average monthly imaging volume data has been provided, which appears to justify a reduction in the N_{jobs} values.

The data does not show the imaging profile though (i.e. how many imaging jobs are conducted and how many images are produced per imaging job). Ahead of any confirmed changes we suggest that a sensitivity impact is conducted to understand how different imaging job profiles may impact overall TEC levels.

Wi-Fi Priority in Test Procedure

We maintain our agreement that Wi-Fi connectivity should be given higher priority as a connection type when configuring products for test. We would also like to reiterate the known issue that disabling Wi-Fi functionality in some imaging equipment products can be a complex undertaking. As such, the ENERGY STAR v3.0 specification should also require that manufacturers provide users with information about how to disable Wi-Fi functionality. We believe this is an important consideration for users which utilise other network connections other than Wi-Fi during operation.

Maintenance Modes

We have previously provided comments about maintenance modes and their potential impacts on energy use of imaging equipment. The US EPA have suggested that all maintenance modes be disabled during test. Excessive waking of imaging equipment from low power modes to perform "maintenance tasks" can clearly impact the efficiency of a product. A product with less need for maintenance mode will give a lower energy consumption for the owner but this is currently not reflected in the test method. It is important to consider the impact of these maintenance modes and support testing of products to include maintenance modes during test. This could include an addition to the TEC calculation to include duration and frequency of maintenance modes as well as average power demand during these activities.

Power supply rated output test procedure

We have previously commented about the need for a test procedure to determine rated output power of internal power supplies. The ENERGY STAR v2.0 specification includes a sleep mode power demand allowance based on the rated output of any external or internal power supply unit used with mailing machines and standard format imaging equipment (Table 8 page 15 in the ENERGY STAR v2.0 specification). This requirement causes verification issues where manufacturers rely on the rated output of internal power supplies to meet sleep mode limits.

That is, to verify that an accurate internal power supply allowance has been used it is sometimes necessary to physically dismantle the product to gain access to the power supply. Attempting to verify rated power outputs of internal power supplies can result in products being damaged if no access panel to the power supply is present. We believe that no additional allowances for rated output power should be given for internal power supplies unless a suitable method of determining rated output is included in the ENERGY STAR v3.0 test procedure.