

Hewlett-Packard (HP) has participated in the responses being provided to the EPA from the SNIA GTWG, and in general supports this feedback. Some additional clarity and emphasis are provided here. For any follow-up, the primary contact at HP is: Herb Tanzer, Storage Architect, herb.tanzer@hp.com, 719-548-3415

Section 1: DEFINITIONS

Per footnote at the bottom of pg. 2, reference is made to the SNIA Emerald Power Efficiency Measurement Spec as "Version 2.0.0 rev 1, 12 December, 2012." Also, this footnote is repeated in multiple other places. Currently the Emerald Spec is Version 2.0.1 Rev 3, 17 June, 2013 and there are pending errata changes that will make it Rev. 4 as a final release just before the EPA Storage ENERGY STAR Spec is released. It would be best to refer to just a single footnote that identifies this latest Emerald Spec just before ENERGY STAR spec release.

[222-226]: As part of submitting optimized data, is there a "process" to follow for the supporting calculations and rules that are used to derive the qualifying product ranges-sku's (sort of like a "spreadsheet methodology")?

[281-286]: For a system with multiple device types that includes automated storage tiering, it is not yet clear how to find the optimal point. Presumably, it is up to the vendor to figure this out if they want to submit this type of Optimal Configuration test points

Section 2: QUALIFYING PRODUCTS

OK

Section 3: QUALIFYING CRITERIA

[496-499]: The Workload Weighing Requirements for Steaming Optimization as 70%/30% SeqRead/SeqWrite is not understood. There will be a SeqR-100% Optimal point and a SeqW-100% Optimal point, and these will not likely have the same Performance/Watt values, and may or may not (more likely not) have the same drive type and/or count. It is possible to numerically ratio the two separate metric values by 70%/30% to generate a single number, but then which drive type and/or count is associated with this? For generating the qualified ranges, it is the latter for which we need to be definitive.

[510-511 and 524-526] Reading these two together, is the following interpretation correct: first choose a device type that is the biggest seller for a given workload and test for the Optimal point Qual Range; it is then possible to select other device types and do more Qual Range testing

[616]: "Distributed" should be changed to "scale-out"

[655]: Which selected data from the ASHRAE Thermal Report is required to be displayed on the ENERGY STAR website?

[667-672]: Presumably, system retesting will be required if a set of product changes are made that are suspected of leading to a greater than 20% shift in overall system performance/watt?

Section 4: TESTING

OK

Section 5: EFFECTIVE DATE

OK