



ENERGY STAR

Version 1.0 Storage Program Updates

July 21, 2015

U.S. Environmental Protection Agency





Agenda

- Where are we in Version 1.0?
- What is coming up next?
- How is EPA handling adoption of Emerald V2.1?
- Questions?



Recent Developments

- March 2014 – Released an update to increase the modeling accuracy requirement from $\pm 5\%$ to $\pm 10\%$.
- EPA is considering making a minor revision to Section 3.6.2 to allow more flexibility in particular binary requirements within Section 3.6.2 for products which continue to meet the overall 20% performance/watt improvement requirement in Section 3.6.1.



Current Storage Certified Product List

- 105 products certified
- 10 manufacturers represented

Online Category Breakdown	
Online 2	16
Online 3	67
Online 4	22

Workload Configuration Representation	
Transaction	62
Streaming	48
Capacity	15

Storage Type	
Block I/O Only	81
Block I/O + NAS	24



EPA and Industry Storage Data Analysis

- EPA and industry (TGG/ITI/SNIA) are currently performing a joint data analysis similar to joint analysis conducted for computer servers in 2014.
- Goal is for EPA and industry to wrap up analysis and share findings with each other in late summer / early fall.
- Results of the analysis and initial discussion on potential approaches for Version 2.0 based on the findings are planned to occur during an “offseason” in-person storage stakeholder meeting later this fall.
 - Possibly during SNIA F2F in mid November
- Other topics will also be discussed, such as new technologies that have already or will soon alter the storage market in meaningful ways looking towards Version 2.0.



Adoption of Emerald Version 2.1

- Released May 29, 2015
- SNIA is currently validating the supporting tools for Emerald V2.1, targeted for completion in early August.
- Once validations are complete, SNIA submissions will be conducted using Vdbench V5.4.3.
- For ENERGY STAR testing and submissions, EPA intends to review the results of the Vdbench validation and plans to issue new guidance for the adoption of Emerald V2.1
 - Will also provide guidance on version specific policies to handle supplemental test report submissions for component upgrades and drives types for systems that were tested under Emerald V2.0.2 vs. V2.1.



Questions or Comments?



Please send any additional comments to storage@energystar.gov or contact:

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