



Green Storage Community 2025 Review and 2026 Plans

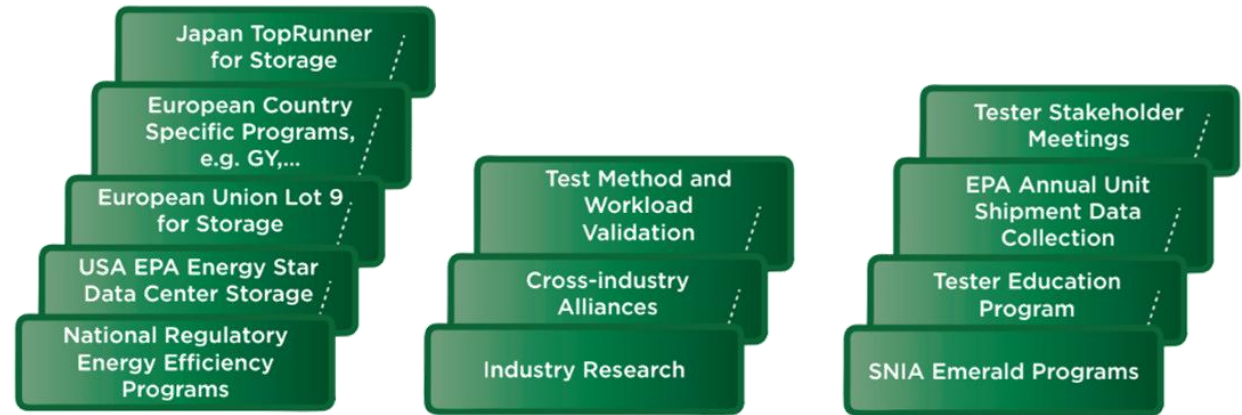
Presented by

Wayne M. Adams, SNIA Chairman Emeritus, SNIA Green Community Chair

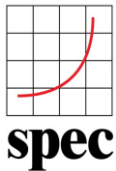
Email: green-chair@snia.org

Key Activities:

- SNIA Emerald for Enterprise Storage Devices V1.0 Q3 2025 **NEW**
- SNIA Emerald for Enterprise Storage Systems V5.0 1H2026
- Develop, maintain and publish specifications, JTC1 ISO
- Storage Expertise, for Workloads, Characterization, Metrics
- Cross-Industry Technical Collaboration
- Regional Regulatory Body Metrics, Reporting and Requirements
- Whitepapers, Education, Trends




SNIA Emerald™ Power Efficiency Measurement Specification for Enterprise Storage Systems
 ISO/IEC 24091 - Information Technology - Power Efficiency Measurement Specification for Data Center Storage



EU Lot 9



JEITA

SNIA  Japan™

Green Storage TWG ROADMAP- 2026

Approximate and subject to change

Update 12-17-2025

		CY2026												CY 2027				CY2028
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Q1	Q2	Q3	Q4	
#	Events																	
1	SNIA-GTWG F2F																	▽ SNIA Member Symposium
	Invite EPA to concall																	
2	EPA-SNIA Industry Meetings		▽ DCS Stakeholder Meeting						...as needed...									▽ DCS Stakeholder Meeting
3	ENERGY STAR Data Analysis (on file submittals)		▽ V2.0/2.1 data analysis															
4	Emerald System Spec v5.0 CTS lite replacement for Vdbench Update to Spec Storage 2020		▽ Spec V5.0 Public review			▽ Submit for SNIA Approval			▽ Publication									
5	ISO version of Emerald System Spec 5.0 (tentative)																	▽ Submit to ISO
6	Emerald Device Spec V1.0			▽ Test Community Readiness														TBD Submit to ISO
	Future:																	
	EPEAT Technical committee to form in Q1FY26																	
	AI Workloads																	
8	Partner Collaboration/Tracking	----->																

ESTAR, ITI/ TGG (incl 80PLUS, Digital EU), EU Lot 9, ASHRAE, SPEC-Storage/Power, SNIA-Jpn TopRunner, ISO, ETSI, DMTF



Green Storage Community Work Items

- Industry Stakeholder Meeting Q1CY2026 - Zoom meeting
 - focused on SNIA Emerald stakeholders for policy, regulatory, and testing
 - Resynch industry with latest SNIA Emerald specifications, tools, timelines; reaffirm the relevancy of SNIA specifications and future requirements gathering
- Community opportunity and interest survey to prioritize interest and resources to expand Green Work beyond Emerald specification rollout, based on community member interest
 - whitepapers, research, alliances, open source tools, cross-SNIA TWG/Community collaboration (e.g. Storage.AI, IOTTA, SFF) etc...









Industry Landscape/Trends

- ▮ sustainability, performance, power/efficiency
 - ▮ by device, by storage, by IT, by geo/political location, by entire data center
- ▮ performance by device, system, application - longstanding industry approach
- ▮ different advancements in technology in points in time, shift the max performance bottleneck between processor/compute, network/interconnect, and data/storage
- ▮ inhouse tools, open source tools, a few tools for a fee; a few industry association programs
 - ▮ industry association programs take resources - for spec, for testing, for self/3rd party audit, challenge
 - ▮ comprehensive, fair, reflective of the deployed environment, not too expensive,
- ▮ consumers
 - ▮ customers/CIO, design/architect engineers, regulatory bodies

Green Community - Grown > 55 members

- Currently, historic nucleus focus reduced to SNIA Emerald programs, alliances, regulatory, funding and training (while TWG focused specification work, test methods and validation)
- In coming year will launch a series of Zoom meetings and Survey Monkey focus area preferences, and attempt to expand focus to alliances, whitepaper, education, geographic regulations, tool listings, etc...break out the group to a separate meeting time, format, not intertwined with TWG work under an IP policy (as a possible constraint).
- Wayne available to accelerate any mutual alliance to be responsive Storage.AI and or new, strategic alliances
- A future outcome tbd what the incremental work items will be and the active volunteers are able to create/contribute

Roster



Green Storage Community Participation

- What is the expected industry impact of this work
 - For SNIA Emerald, the ongoing goal is one standards base test methodology that can support many objectives (test once, report many)
 - For the many facets of energy efficiency and performance - to guide industry planners and solution implementers to cost effective and efficient
- Why you should join and participate in this group
 - Work alongside with other industry experts to create value for industry and for your own company.
- Who to contact for additional information green-chair@snia.org
 - [Wayne M. Adams, waynemadams@gmail.com](mailto:waynemadams@gmail.com) for SNIA Green Community
 - Don Goddard and Dave Thiel for Green Storage TWG