

NEWS & UPDATES

Newsletter for the GRID DATA Repository and BetterGrids Foundation, Inc.



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Message from our President: Dr. Ali Vojdani, BetterGrids Foundation



A Year of Independence, Trust, and Purpose

As we navigate a rapidly changing energy landscape shaped by electrification, climate pressures, and the accelerating role of artificial intelligence, one truth remains constant: data is the foundation of tomorrow’s grid.

At the BetterGrids Foundation, our mission has never been about chasing trends. It has been about stewardship — supporting education and research by providing access to test datasets and grid models that enable analysis, learning, and innovation. The BetterGrids Grid Data Repository does **not** contain real, confidential, or operational grid data, and is intentionally structured to avoid exposure of sensitive information.

2025 marked a defining year for BetterGrids

We achieved full operational independence, strengthened our governance, and continued to mature from a promising initiative into a durable public resource. Our repository expanded in scope and usefulness, our technical and outreach committees deepened their engagement, and our educational efforts focused on helping the industry navigate complexity — particularly around AI — with realism rather than hype.

Equally important, this progress was made deliberately and responsibly. BetterGrids operates without employees, supported by a dedicated community of volunteers, advisors, and contributors who believe that carefully curated, non-sensitive test data can raise the quality of research and decision-making across the power sector. That discipline — technical, organizational, and ethical — is something we are proud to carry forward.

Message from our President: Dr. Ali Vojdani, BetterGrids Foundation (continued)

I would like to extend my sincere thanks to our Board of Directors, committee members, volunteers, and partners for their continued guidance and commitment. I would also like to welcome our new Board Members Bahman Hoveida and Terry Nielsen, and our new Corporate Secretary John Thompson.

Our expenses are entirely covered by donations. I thank all our donors, with special appreciation to the Hoveida Family Foundation, for their ongoing support of BetterGrids. Their confidence in our mission has helped sustain core operations, strengthen our technical infrastructure, and expand our ability to serve the community.

As we move through 2026, BetterGrids remains focused on what we do best — curating meaningful, non-sensitive test datasets, fostering informed dialogue, and supporting responsible innovation. I invite you to stay engaged, challenge us, and help shape the next chapter of this work.

Together, we are building not just a repository, but a foundation for better grids.

With gratitude,



Ali Vojdani, Ph.D.
President
BetterGrids Foundation

Technical Committee Update – Strengthening the Foundation for Trusted Grid Data

Throughout 2025, the BetterGrids Technical Committee focused on reinforcing the reliability, independence, and long-term sustainability of the Grid Data Repository—recognizing that the value of advanced analytics and AI depends first on the integrity of the data beneath it.

The October 22, 2025 annual Technical Committee meeting served as a consolidation point for work that had been underway across the year, bringing together committee members, Board leadership, and contributors to review progress, assess risks, and identify priorities for the coming cycle.

Repository Growth and Resilience

The committee reviewed steady growth in repository usage and content during 2025, including the addition of new datasets and models supporting renewable integration, outage analysis, and demand-side planning. While growth remains an encouraging signal of relevance, the discussion emphasized that scale alone is not the goal.

Members raised concerns about long-term data durability, particularly where models are linked externally rather than hosted directly. The risk of link degradation or data loss prompted agreement that repository resilience must evolve alongside growth. Follow-up actions were identified to explore link verification, selective redundancy, and clearer stewardship practices to preserve access over time.

Operational Independence and Infrastructure

A central theme across the year—and reaffirmed in October—was BetterGrids' full operational independence. The repository, website, and supporting infrastructure are now managed entirely by BetterGrids through its volunteer and contractor community, without reliance on prior commercial platforms.

Technical Committee Update – Strengthening the Foundation for Trusted Grid Data (continued)

The committee reviewed ongoing infrastructure work, including repository software modernization options and the planned deployment of enhanced traffic and download analytics. These efforts are intended to improve visibility into how the repository is used, while maintaining the organization's commitment to privacy, neutrality, and non-competitive collaboration.

Governance and Organizational Continuity

Committee discussions also reflected important governance milestones in 2025, including new Board appointments and leadership transitions that reinforce institutional stability. These changes were framed not as administrative formalities, but as essential to sustaining donor confidence and ensuring continuity as BetterGrids expands its role within the grid data ecosystem.

The committee emphasized that governance clarity is increasingly important as BetterGrids engages with partners, funders, and research consortia operating at different scales and levels of formality.

Community Feedback and Emerging Needs

Survey feedback reviewed during the meeting reinforced several consistent themes from the community: demand for cleaner datasets, better documentation, and tools that support AI experimentation without exposing sensitive or operational data. Respondents highlighted the repository's credibility and accessibility as distinguishing strengths—attributes the committee agreed must be protected as new capabilities are explored.

These insights continue to inform prioritization, particularly around data curation practices and potential value-added services that complement, rather than compete with, existing industry efforts.

Collaboration and the Path Ahead

The Technical Committee also reviewed BetterGrids' participation in EPRI's Open Power AI Consortium, where the foundation contributes domain expertise and supports emerging approaches to AI model validation and training data development. This work aligns with a broader committee view that BetterGrids' role is not to build proprietary solutions, but to enable collaboration through trusted, neutral infrastructure.

Looking ahead, the committee reaffirmed that progress will be incremental and intentional. Strengthening repository resilience, clarifying service opportunities, and sustaining community trust remain central priorities as BetterGrids continues to support research, learning, and innovation across the power sector.

The Impact of AI on the Power Industry Workforce

The BetterGrids Foundation's December 2025 webinar, *The Impact of AI on the Power Industry Workforce*, convened senior leaders from across the energy, technology, and infrastructure sectors to examine how artificial intelligence is reshaping grid operations, workforce expectations, and modernization strategies.

Moderated by **Stephen J. Callahan**, Chief Consultant for Government & Grid Modernization at Qualus, the discussion focused on practical challenges facing utilities as they adapt to increasing system complexity, rising data volumes, and growing coordination demands across technical, regulatory, and organizational boundaries.

The panel included **Bahman Hoveida**, President and CEO of Accurant International; **Don McDonnell**, Global Partner Leader at AWS; and **Mark Browning**, retired Senior Vice President of IT and CIO at Exelon and founder of UtiliTech Advisors. Together, they explored how AI adoption in the power sector is closely tied to the maturity of underlying data environments and institutional readiness.

The discussion emphasized that inconsistent, incomplete, or poorly governed datasets can limit the effectiveness of advanced analytics and automation, potentially introducing risk rather than clarity. As a result, workforce preparedness increasingly depends on strong data management practices alongside traditional engineering expertise.

Cloud infrastructure was highlighted as a key enabler of experimentation and collaboration. Scalable platforms are lowering barriers to testing and scenario analysis, allowing utilities and researchers to evaluate new approaches more efficiently. This shift is also influencing workforce development priorities, with greater emphasis on data governance, cybersecurity, and cross-functional collaboration.

Drawing on utility leadership experience, the session also addressed organizational readiness. Panelists discussed the importance of aligning technology adoption with governance structures, regulatory expectations, and internal change management. Workforce transformation, the discussion noted, remains as much a leadership and cultural challenge as a technical one.

Audience questions reinforced the need to balance innovation with reliability, particularly in areas such as cybersecurity, regulatory coordination, and risk management. The conversation reflected the trade-offs utilities face as they integrate AI-driven tools into mission-critical systems.

Overall, the webinar underscored that the impact of AI on the power industry workforce is likely to be evolutionary rather than abrupt. Progress depends on sustained collaboration, shared data resources, and incremental capability-building across institutions. Open, credible data environments remain central to enabling a capable and adaptable workforce as the grid continues to modernize.

Volunteer Spotlight – Nancy Nielsen: Connecting People Behind the Scenes



Nancy Nielsen provides steady behind-the-scenes support for the BetterGrids Foundation, assisting with webinar invitations and hosting tools, website updates, community engagement efforts, and helping assemble communications such as this newsletter.

A former educator, Nancy brings strong organizational skills and a thoughtful, practical approach to her work – qualities that support BetterGrids’ efforts to educate and share helpful resources with the community. She has previously worked with GridBright as well as Qualus, and has also worked in other fields where she has developed and strengthened many of the same skills she now applies in her volunteer contributions.

Nancy enjoys the opportunity BetterGrids provides to engage with a wide variety of people across the industry and community. Her creativity, reliability, and willingness to step in wherever help is needed make her a valued part of the team.

Outside of her volunteer work, Nancy enjoys spending time outdoors, traveling, volunteering with a local animal rescue, and spending time with friends and family.

Thank you, Nancy, for your talents, efforts and dedication to BetterGrids

Notable New Additions to the BetterGrids Repository	Source
<p>PyPSA-USA & PyPSA-EUR</p> <p><i>Open-source power systems models of the bulk transmission systems in the United States & full ENTSO-E area, respectively. These workflows allow building of highly configurable power systems models that can be used for capacity expansion modeling, production cost simulation, and power flow analysis..</i></p>	<p>PyPSA</p>
<p>TEMPO: Transportation Energy & Mobility Pathway Options Model</p> <p><i>An electric vehicle charging dataset that projects spatially, demographically, and temporally resolved passenger electric vehicle charging demand. The data are hourly annual for 2024-2050 based on 2012 actual meteorological year (AMY) weather; are available for three scenarios of light-duty passenger electric vehicle adoption, 3,108 counties in the contiguous United States (CONUS), 720 household and vehicle types, and two charging types (L1&L2 and DCFC); and were produced by running the TEMPO model at the county-level. The three adoption scenarios are: AEO Reference Case (aligned with the U.S. EIA Annual Energy Outlook 2018), EFS High Electrification (aligned with the High Electrification scenario of the Electrification Futures Study), All EV Sales by 2035 (assumes that average passenger light-duty EV sales reach 50% in 2030 and 100% in 2035). The charging shapes are derived from two key assumptions of which data users should be aware: Ubiquitous charger access: Drivers of vehicles are assumed to have access to a charger whenever a trip is not in progress. Immediate charging: Immediately after trip completion, vehicles are plugged in and charge until they are either fully recharged or taken on another trip. These assumptions result in a bounding case in which vehicle state of charge is maximized at all times.</i></p>	<p>NLR</p>

Thank you to all of you!

We appreciate your continued support and connection with the BetterGrids Foundation. If you'd like to provide a charitable donation to the BetterGrids Foundation, please contact us at Ali.Vojdani@BetterGrids.org. If you have any ideas for Webinars, Forums or continued engagement, please reach out to us at Terry.Nielsen@BetterGrids.org

Stay Current

Stay up to date on the Repository progress and BetterGrids by following us at LinkedIn or at our website, www.BetterGrids.org

