DNP Users Group Workshop Series

IEEE P1815.2™ (DNP3) vs IEEE Std 2030.5™ vs SunSpec Modbus – Friends or Foes?"

Distributed Energy Resource (DER) Communications for the Energy Transition

Tuesday, June 24, 2025, 3:00 - 4:30 PM ET

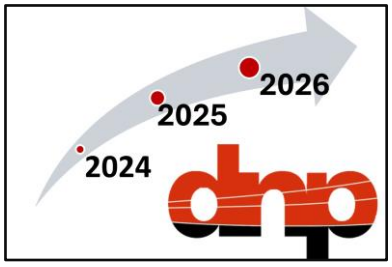
This workshop is offered at no charge to our members and non-members.

Register

Description

The DNP Users Group (DNP-UG) develops and presents periodic workshops that are open to the public. Each event features industry leaders addressing important topics relevant to the industry and our members. Workshops will generally be followed by related tutorials and training courses for our members.

Effective DER communications, requires the use of carefully designed and selected communications protocols. These protocols must address a wide range of requirements that vary depending on the position and role in the overall system architecture. Key requirements may include cybersecurity, control performance, time stamped data, device discovery, energy storage functions, scheduling functions, transactive energy model, reporting by exception and many others. Strong support by a



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user's group and a robust test and certification program are generally considered to be important requirements.

IEEE Std 1547™ – 2018 specifies three protocol options (as noted above) for the local DER communication interface (LDERCI) that may be used. The objective of this panel is to provide attendees (vendors and utilities) with an overview of the different capabilities of the three protocols. Attendees will gain insight into which protocol may be best suited to their requirements.

This panel will feature four recognized experts describing and discussing IEEE 1547, IEEE P1815.2 (DNP3), IEEE 2030.5 and SunSpec Modbus. Our speakers are from EPRI, Xanthus Consulting and Enetrics.

Ample time will be allotted for audience participation and discussion.

Speakers (see bios below)

- John McDonald, Panel Chair, JDM Associates
- Ben Ealey, EPRI
- Frances Cleveland, Xanthus
- Robby Simpson, Enetrics
- Bob Fox, Enetrics

To receive periodic updates and news, click here: **Enroll**

The DNP-UG is a non-profit group with the mission to actively support measures to improve interoperability and cybersecurity in DNP3-based systems by developing technologies and standards, implementing a conformance program, and providing education to the industry. Utilities and vendors benefit significantly with reduced project and development costs and risks due to a broadly adopted, well managed, highly interoperable and secure protocol (if implemented).

To participate and support our work please join us! Click here: **Membership Guide** or **Join**

For more information click here: **dnp.org home**

DNP Users Group Workshop Series

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For assistance or more information, contact Sara at membership@dnp.org

Speaker Pictures and Short Bios

John D. McDonald, P.E., Founder & CEO of JDM Associates, LLC, Panel Chair

John D. McDonald has 50 years of experience in the electric utility transmission and distribution industry. John received his B.S.E.E. and M.S.E.E. (Power Engineering) degrees from Purdue University and an M.B.A. (Finance) degree from the University of California-Berkeley.

John is a Life Fellow of IEEE (member for 53 years), member of IEEE-HKN (inducted 53years ago) and Tau Beta Pi (inducted 51 years ago), member of the Delta Sigma Phi Fraternity, and was awarded the IEEE Millennium Medal, the IEEE Power &Energy Society (PES) Excellence in Power Distribution Engineering Award, the IEEE PES Substations Committee Distinguished Service Award, the IEEE PES Meritorious Service Award, the 2024 CIGRE US National Committee (USNC) Philip Sporn Award, the2016 CIGRE Distinguished Member Award, the 2016 CI GRE USNC Attwood Associate Award, the 2021 CIGRE Honorary Member Award, the Smart Energy Consumer Collaborative (SECC) Lifetime Achievement Award, and the Delta Sigma Phi Fraternity Career Achievement Award.

John received the 2009 Purdue University Outstanding Electrical and Computer Engineer Award and the 2023 Purdue University Distinguished Engineering Alumni Award. John teaches Smart Grid courses at the Georgia Institute of Technology and the University of Tennessee at Chattanooga, and Smart Grid courses for various IEEE PES local chapters as an IEEE PES Distinguished Lecturer (since 1999). John

has published one hundred fifty papers and articles, has co-authored five books and has one US patent.

Ben Ealey, Principal Team Lead, DER Communication and Data Integration, Electric Power Research Institute (EPRI), Panelist

Ben is an industry expert on grid interoperability and currently manages EPRI's DER Data and Connectivity Team. His research focuses on integrating DERs, specifically developing and implementing interoperability, telecommunications, and data requirements for integrating DERs with grid systems. Ben has led and served on several industry committees and standards related to grid interoperability and DERs. He leads the interoperability and cyber security subgroup in the IEEE 1547 revision, was a member of the IEEE 1547-2018, and 1547.1-2020 work groups, led the P1547.2 and 1547.9-2022 interoperability work group, and was principal investigator for the project that led to DNP Application Note AN2018-001 (DNP3 Profile for Communications with DERs).

bealey@epri.com

Ms. Frances Cleveland, Principal Consultant, Xanthus Consulting International, Panelist

Ms. Frances Cleveland has managed and consulted on Cybersecurity, Smart Grid, and Distributed Energy Resource projects in the electric power industry for over 35 years. Her expertise has focused primarily on Smart Grid cyber security standards and specifications, resilience of the power grid, information interoperability for Distributed Energy Resources (DER), plug-in electric vehicles (PEV), Advanced Metering Infrastructures (AMI), Distribution Automation (DA), Substation Automation, SCADA systems, and

Energy Market operations. In the IEC, she is convenor of IEC TC57 WG15 for IEC 62351 cybersecurity standards, the leader of the IEC SyC WG3 Cybersecurity Task Force, and the editor for IEC 61850-7-420 information standards for DER. In the IEEE she was the secretary for IEEE 1547.3: 2023 on cybersecurity recommendations for DER, and she is now participating in updating IEEE 1547:2018 on cybersecurity for DER systems and the necessary communications for grid resilience and interoperability. She is leading a California Public Utilities Commission (CPUC) working group on Operational Flexibility in the High DER Future and another CPUC working group on DER cybersecurity requirements. She is also a member of the DOE/NARUC steering committee on Cybersecurity Baselines for distribution systems and DER. Previously she has worked on projects for the National Institute of Standards and Technology (NIST), CEATI, Electric Power Research Institute (EPRI), Electricité de France (EdF), Hydro-Québec, and other utilities on cyber security requirements.

Dr. Robby Simpson, Co-Founder and Principal of Enetrics, Panelist

Robby has been engaged in grid modernization for several years, particularly in the areas of distributed energy resources, AMI, metering, and demand response, and has been heavily involved in accelerating standards for smart grid interoperability. Robby is active in IEEE (he is a former member of the IEEE SA BOG and Chair of IEEE P2030.5), IEC, and IETF. Through these efforts, he not only helps to accelerate standards development, but also ensures the adoption of those standards within Enetrics and the market as a whole.

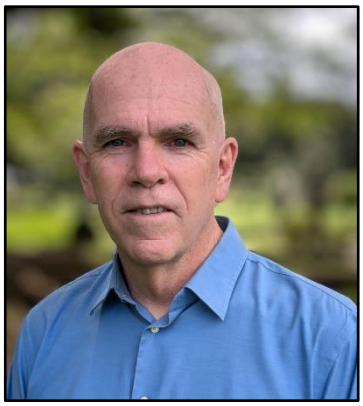
At Enetrics, Robby creates innovative software and tools for distributed energy resources with a primary focus on standards conformance testing.

Robby received his B.S. in Computer Engineering from Clemson University and his M.S.E.C.E. and Ph.D. (Electrical and Computer Engineering) degrees from the Georgia Institute of Technology (Georgia Tech), where he focused on Internet measurements, large-scale simulation, network protocols, and

information security. Prior to focusing on smart grid, Robby worked on satellite communications at MIT's Lincoln Labs.

Robby has published several refereed conference and journal papers on topics ranging from network measurements, network security, and network simulation to superconductor behavior. Robby has also received numerous awards for his academic and industry efforts and is an Eagle Scout (and still believes it to be worth mentioning all these years later).

For more information, please visit http://www.robbysimpson.com



Bob Fox, Co-Founder and Principal of Enetrics, Panelist

Bob actively participates in IEEE 1547 standards and related protocol standards such IEEE 2030.5. Bob was Vice Chair of IEEE 1547-2018 and helped lead the clause 10 interoperability content. He was also co-lead for the clause 6 interoperability content of IEEE 1547.1-2020. Bob was the technical lead at the SunSpec Alliance for 10+ years. While at SunSpec, Bob led the development of the SunSpec Modbus specifications including the SunSpec Modbus information models used in the SunSpec Modbus profile for IEEE 1547. Bob has 20+ years of experience in the DER industry with companies such as Enetrics, SunSpec Alliance and Power-One. Before joining the DER industry, Bob worked on real-time operating system and networking implementations for companies such as Tymnet, McDonnell Douglas, MCI, Tandem, and HP.

At Enetrics, Bob works on automated compliance testing solutions for IEEE 1547 and the associated protocol standards.