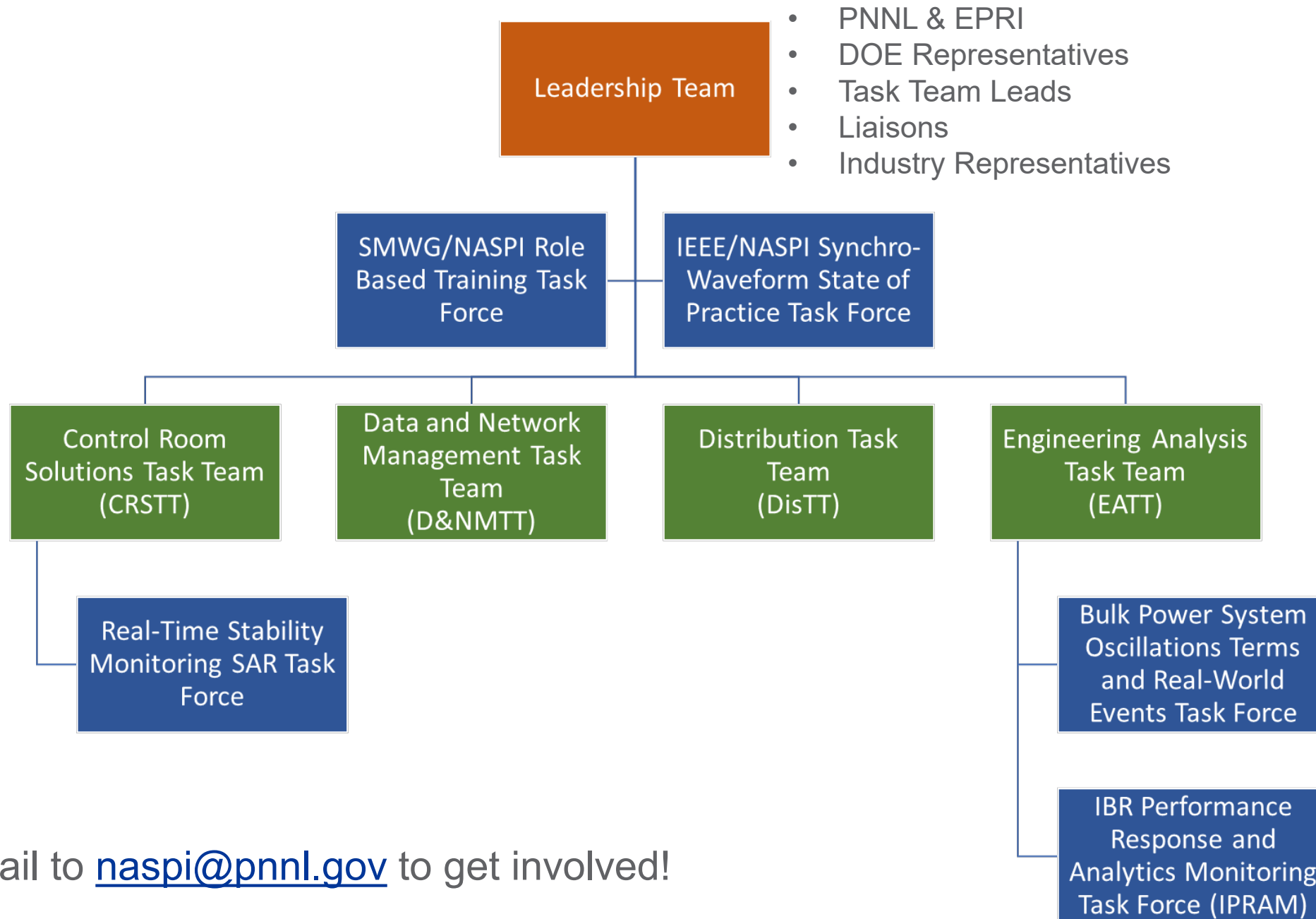


NASPI Update

Jim Follum



Work Group Structure



Send an email to naspi@pnnl.gov to get involved!

Meeting Cadence

Content available at [NASPI.org](https://naspi.org)
under the Past Recording tab

April	May	June	July	August	September	October	November	February
Chicago Work Group Meeting	Webinar	Webinar	Virtual Quarterly Task Team Meetings	Webinar	Webinar	Webinar	Charlotte Hybrid Work Group Meeting	Virtual Quarterly Task Team Meetings

Task Forces meet as needed throughout the year



Task Team Meetings

Wednesday, July 8

Data & Network Management Task Team (DNMTT) | 9:00 – 11:00 (PT) / 12:00 – 2:00 (ET)

Distribution Task Team (DisTT) | 11:00 – 1:00 (PT) / 2:00 – 4:00 (ET)

Thursday, July 9

Engineering Analysis Task Team (EATT) | 9:00 – 11:00 (PT) / 12:00 – 2:00 (ET)

Control Room Solutions Task Team (CRSTT) | 11:00 – 1:00 (PT) / 2:00 – 4:00 (ET)

- Please ensure you're muted when not speaking
- Slides will be posted to the NASPI website

Summer Webinar Series – Past Recordings

Sensor Data as a Service

- Part 1
 - David Rieken, Hubbell
 - Ralph Brown, Grid Visibility
 - Dan Kopin, Grid Visibility
- Part 2
 - Theo Laughner, Lifescale Analytics
 - Diego Rodriguez, Reactive Technologies
- Recordings are available on the NASPI website

NASPI
A DOE-EPRI Joint Initiative

WEBINAR SERIES

Sensor Data as a Service: Part 1

Wednesday, May 27, 2026, at 10 a.m. PT (1 p.m. ET)
[Register today for the free one-hour webinar](#)

Sensor Data as a Service is transforming grid monitoring by providing utilities with on-demand access to richer measurement data and actionable insights. By enabling earlier detection of abnormal conditions and faster interpretation of events, it can improve situational awareness while reducing the need for large, bespoke monitoring deployments. This webinar highlights two complementary approaches for delivering synchrophasor- and waveform-based observability as a practical, utility-ready service.

Meet the Presenters



Dr. David Rieken is a technology executive and research leader specializing in distributed intelligence, advanced analytics, and grid-edge computing for electric utilities. He serves as the technical lead for the Aclara360 platform, a distributed cloud-edge system for grid observability, analytics, and operational intelligence. Over the past 20 years at Hubbell/Aclara, he has led smart grid and distribution automation research focused on applying advanced sensing, information theory, edge computing, and machine learning to utility infrastructure challenges. Prior to Hubbell/Aclara, he conducted research at MIT Lincoln Laboratory, Boeing, and General Dynamics.



Ralph Brown joined GridVisibility, Inc. to lead R&D after mentoring its founders at CableLabs® where he was CTO and responsible for leading CableLabs' R&D staff in delivering innovative technology to the cable industry. In this role, he led research and development in a broad range of areas, including: Hybrid Fiber-Coax, Optical, and Wireless Network Technologies, as well as Open Source Software, Security, and Technology Policy. In this capacity, he was responsible for leading opportunities for convergence across all CableLabs programs. During this period, he also served on the Board of Directors for SCTE/ISBE, the Digital Living Network Alliance (DLNA), the Open Connectivity Foundation (OCF), and Kyrio®. After retiring from CableLabs he founded Brown Wolf Consulting LLC. Mr. Brown earned a master's degree in Electrical Engineering from Massachusetts Institute of Technology. His Master's thesis was in the field of Speech Recognition. He received his bachelor's degree in Electrical Engineering, Summa Cum Laude, from North Carolina State University.



Dan Kopin is responsible for product definition and lifecycle of GridVisibility's novel platform, which harnesses existing infrastructure in collaboration with the largest broadband operators in the United States. Dan is focused on delivering low-latency, continuous, high-fidelity grid data in service of security, stability, and affordability of the nation's infrastructure. Most recently, Dan was Manager of Innovation at Vermont Electric Power Company, where he served as product owner of an enterprise-wide initiative to align operations, planning, and engineering simulations through common information model-based software. Previously, he facilitated electric reliability compliance programs covering two 24/7 Control Centers, 738 miles of transmission lines, 55 substations, and connections with Massachusetts, New Hampshire, New York, and Québec.

Let's Engage

Feel free to share this Novel Applications for Synchronized Power Instrumentation (NASPI) webinar with your colleagues. You can also view prior webinars and related content in the [NASPI Webinars Archive](#).

For more information about how you can support NASPI and participate in our face-to-face Work Group meetings please visit www.naspi.org, or email naspi@epri.gov. Stay informed on the latest NASPI updates, events, and valuable resources by subscribing to the NASPI mailing list—[subscribe now](#).







NASPI
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WEBINAR SERIES

Sensor Data as a Service: Part 2

Wednesday, June 17, 2026, at 10 a.m. PT (1 p.m. ET)
[Register today for the free one-hour webinar](#)

Sensor Data as a Service is transforming grid monitoring by providing utilities with on-demand access to richer measurement data and actionable insights. By enabling earlier detection of abnormal conditions and faster interpretation of events, it can improve situational awareness while reducing the need for large, bespoke monitoring deployments. This webinar highlights two complementary approaches for delivering synchrophasor- and waveform-based observability as a practical, utility-ready service.

Theo Laughner (Lifescale Analytics) will first discuss an IOT power quality network based on 1.2 million sensors deployed across the North American grid over the past 5 years. The sensor network reports voltage sags, power outages, surges and a composite power quality index each month. The index has revealed that there are an increasing number of faults for many utilities in the United States. To better understand locations and root cause, a fault correlation algorithm has been developed to better pinpoint fault locations on the grid. This presentation shares the approach and some case studies where this approach has been used.

Next, Diego Rodriguez (Reactive Technologies) will explore how high-resolution time-synchronized dynamic measurement can complement PMU and power quality monitoring by revealing behavior that is difficult to characterize through event detection alone, including oscillatory patterns, propagation behavior, damping characteristics, and fast interactions from inverter-based resources, AI data centers, and power-electronic loads. Rather than treating sensor data as raw telemetry, the session will discuss how utilities can turn high-granularity measurements into a dynamic visibility service: supporting baselining, event interpretation, operational confidence, and a better understanding of system behavior across dynamic grid conditions.

Meet the Presenters



Theo Laughner is the Director of Engineering and Geospatial Services at Lifescale Analytics Inc where he has been helping utilities and their stakeholders maximize the return on investment in data for the contemporary grid. Previously, Theo spent 21 years at TVA where he was responsible for the Power Quality program at TVA. He is a senior member of IEEE where he chairs a variety of working groups in cyber security, intelligent grid, power system relaying, and power quality within the Power and Energy Society. He is a registered professional engineer in the state of Tennessee.



Diego Rodriguez, PhD is a Technical Solutions Lead at Reactive Technologies, supporting utilities and system operators across the U.S. energy sector. He brings deep expertise in power system analysis, with a focus on transmission planning, system stability, protection, power quality, and the integration of inverter based resources. In his role, Diego works closely with utilities, ISOs/RTOs, and internal product and commercial teams to deliver data driven, measurement based solutions for grid stability assessment, compliance monitoring, and operational decision making as system complexity increases. He holds a PhD in Electrical Engineering and is an IEEE Senior Member.

Let's Engage

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Summer Webinar Series – Upcoming

- Thirty Years after 1996: WECC Oscillations Then and Now
- Dr. Dan Trudnowski, Montana Technological University
- August 12 at 10 a.m. PT

WEBINAR SERIES

Thirty Years after 1996: WECC Oscillations Then and Now

Wednesday, August 12, 2026, at 10 a.m. PT (1 p.m. ET)

In 1996, the WECC interconnect famously entered an unstable oscillatory event resulting in a wide-spread blackout. The event was the catalyst for major investments in wide-area PMU monitoring, significant advancement in PMU data analyses, more accurate transient simulation modeling, and better tuning of damping controls. This talk looks back at the event and the resulting understanding of the WECC system oscillatory modes. Fundamental questions addressed include: Why did oscillations become a bigger issue coming into the 1990s? What did the event entail? What did we know in the 1990s versus today about the system? Where is the system headed in the next 30 years?

Meet the Presenter



Dan Trudnowski is a professor of electrical engineering at Montana Technological University, and a consultant to the electric power industry. He completed his Ph.D. in EE at Montana State University in 1991, and then spent 5 years as a researcher at the U.S. Department of Energy's Pacific Northwest National Lab. In 1995 he joined Montana Tech where he has served as Professor, Department Chair, and Dean. Dan is an expert in control systems, power system analysis, and application of signal processing. Within these areas, he has participated in and led funded research and development projects resulting in analysis software, control system designs, and laboratory and field prototypes. He has advised approximately 30 graduate students, authored/co-authored over 120 peer-reviewed publications, co-authored a book; and been awarded 3 patents. In 2010, Dan received professional recognition as an IEEE Fellow for work related to electromechanical oscillations. He shared an R&D 100 Award in 2017 for developing an innovative approach to dampen electromechanical oscillations using the PDCI in the WECC.

Let's Engage

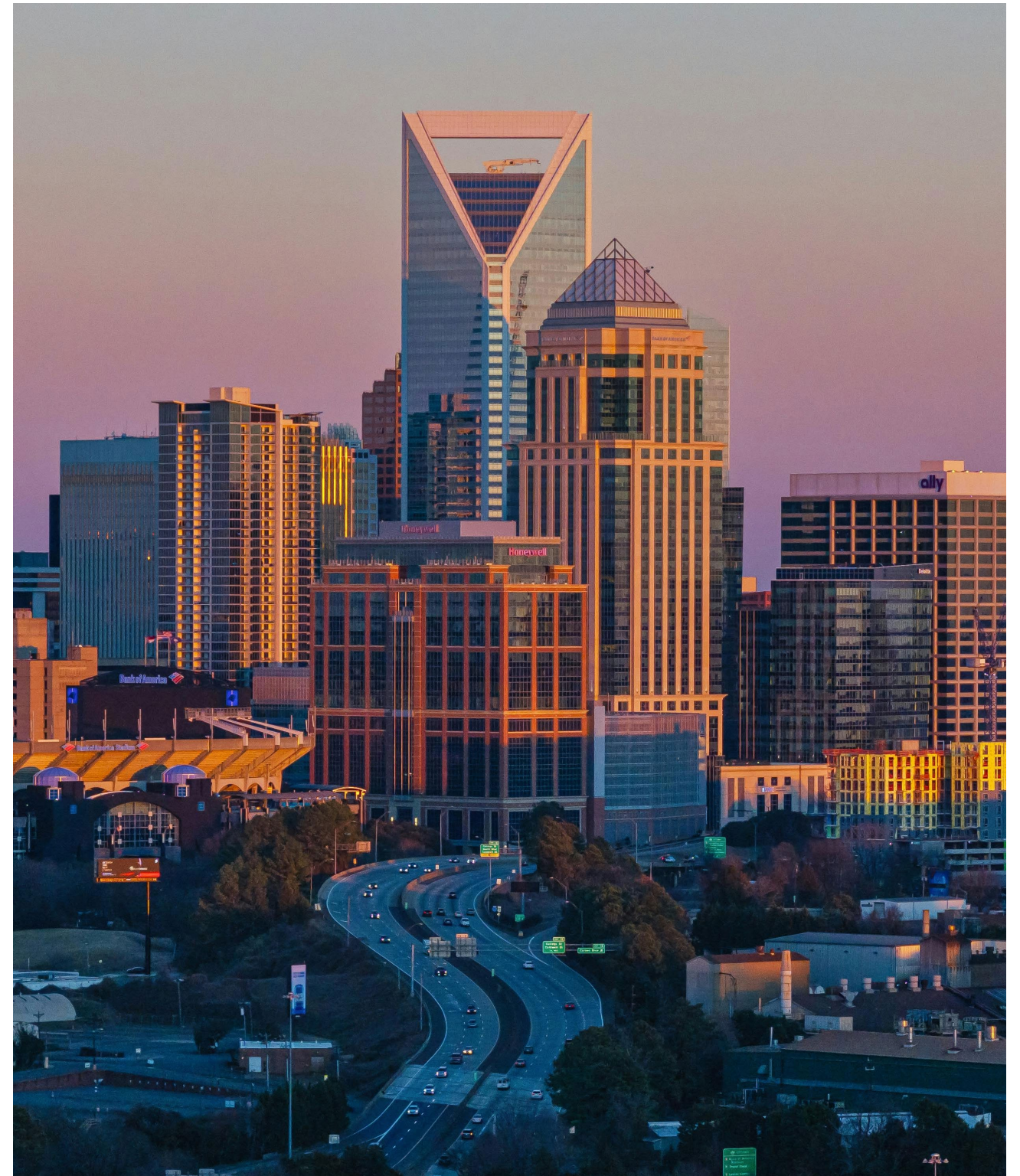
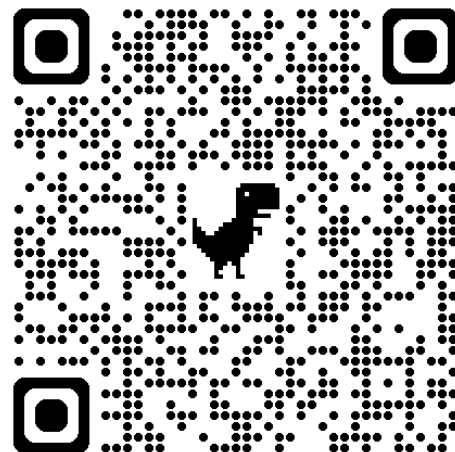
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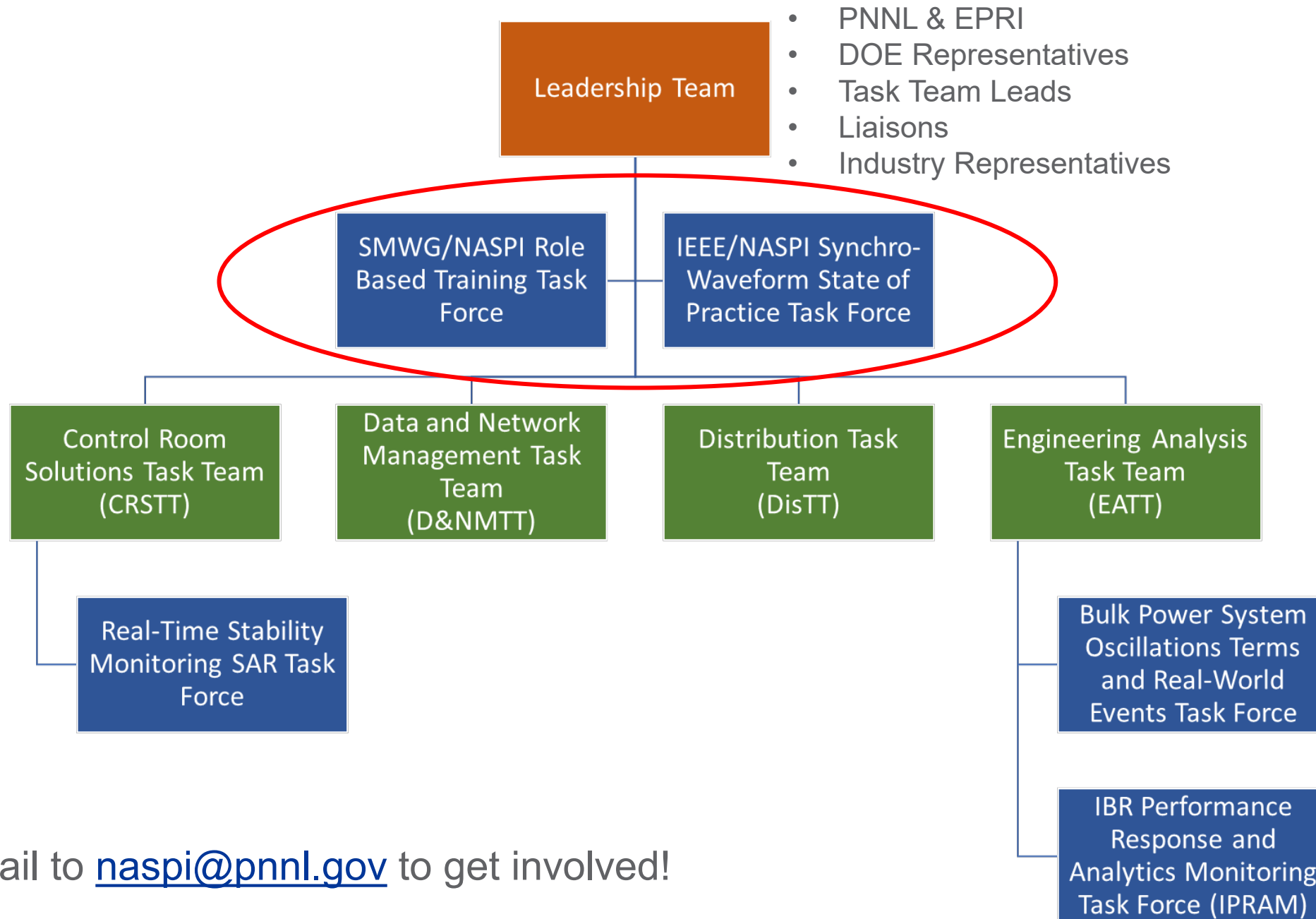
Fall Work Group Meeting

- Charlotte, NC – Hybrid
- November 3-4
 - NERC SMWG meets November 5
- Call for abstracts open until August 9
- Register today!

naspi.org/events



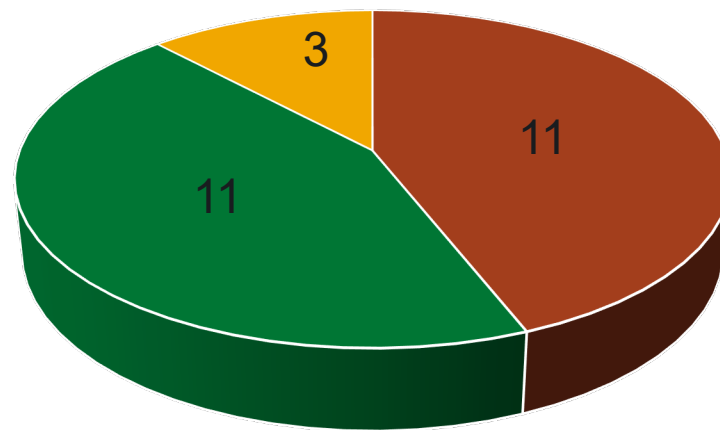
Task Force Updates



Send an email to naspi@pnnl.gov to get involved!

Task Force Update: IEEE/NASPI Synchro-Waveform State of Practice

- Conducting industry-wide survey of utilities and vendors to assess the current state of adoption and deployment of synchro-waveform measurement technology
- Collected 25 responses to date – survey still open!



■ Vendor ■ Utility ■ Operator



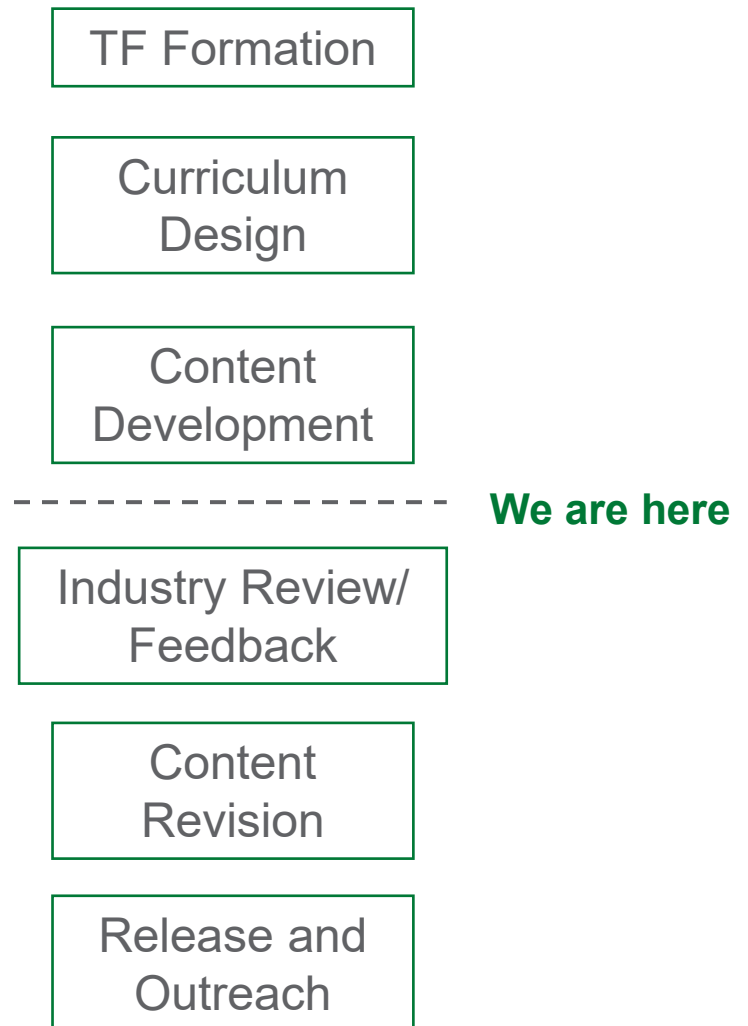
- Initiated analysis of survey responses to identify key trends, technology use-cases, deployment gaps, and utility/vendor perspectives.
- Results being organized into a report
 - Expected publication before Fall'26 NASPI Meeting



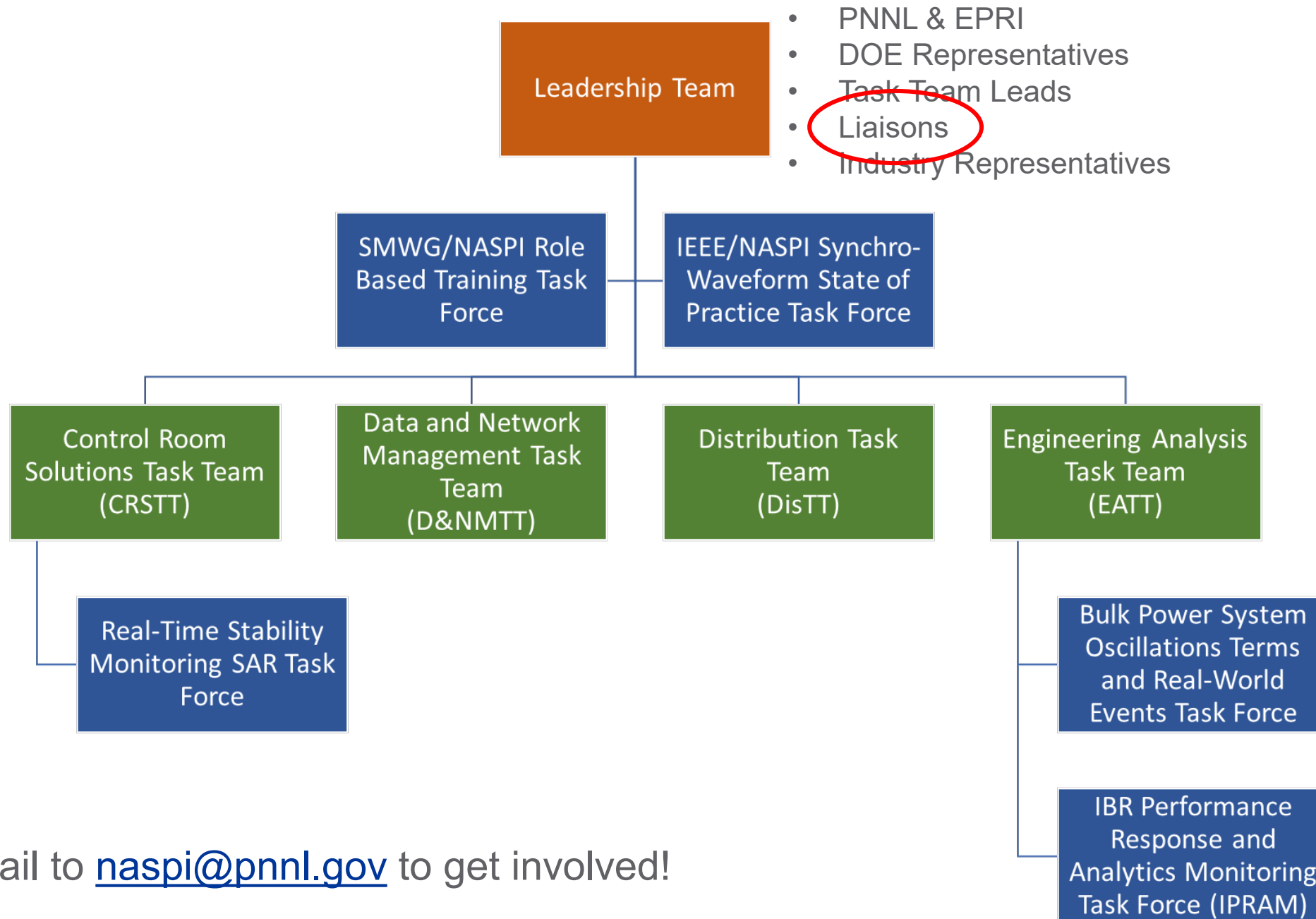
NERC-NASPI Joint Task Force on Role-Based Synchrophasor Training

- **Deliverable:** Customizable, modular training package that enables utilities to train staff across multiple departments using their own system context.
- First drafts for the identified modules have been developed.
- Next steps: Industry review, editing and refinement, content revision.
- Release Target: October 2026
- For more information, reach out to Clifton Black or Eric Andersen.

CRBLACK@southernco.com
Eric.Andersen@pnnl.gov



Liaison Updates



Send an email to naspi@pnnl.gov to get involved!

Liaison Update: IEEE Synchro-Waveform Task Force



IEEE Task Force on Big Data Analytics for Synchro-Waveform Measurements

2026 IEEE PES General Meeting, Montreal

- **Task Force Meeting**

Session Title: [AMPS BDA] Task Force on Big Data Analytics for Synchro-Waveform Measurements

Monday July 20, 11-11:50am ET, Room 511F

- **Panel**

Session Title: Synchro-Waveform Analysis on Large Blackout Events

Monday July 20, 1-2:50pm ET, Room 512C



[IEEE PES GM Program](#)
search for "waveform"



Contacts

Jhi-Young Joo, PG&E (j9ju@pge.com);

Hamed Mohsenian-Rad, UC Riverside (hamed@ece.ucr.edu)

or visit [IEEE Task Force on Big Data Analytics for Synchro-Waveform Measurements](#)



Liaison Update: IEEE PES Task Force on Forced Oscillations

Chairs: Kai Sun (UTK) and Jim Follum (PNNL), Secretary: Bin Wang (ISO New England)
Outreach Liaison: Farrokh Aminifar (Danovo Energy Solutions)

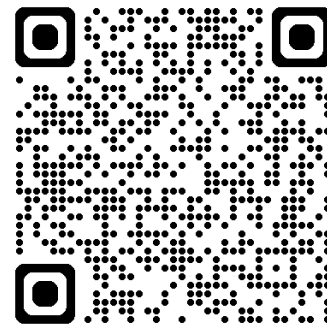
New monthly talks since the April 2026 NASPI meeting updates

- Localizing Cyclic Industrial Load-Induced Forced Oscillations Using Synchrophasor Measurements (Evangelos Farantatos, EPRI)
- Oscillation Detection, Characterization and Source Localization Using PoW Data (Shuchi Biswas, PNNL)
- Dataset for Power System Forced Oscillation Responses (DPSYFOR) (Mani V. Venkatasubramanian, WSU)

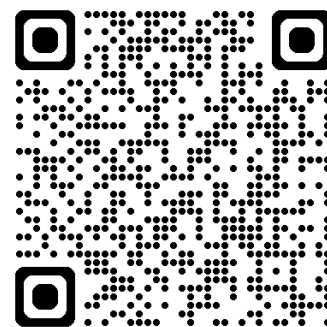
TF report on the survey of approaches for identifying effective mitigation locations for sustained oscillations in modern power grids. In Progress with tentative completion of 9/30/2026

Details available at our
TF Portal

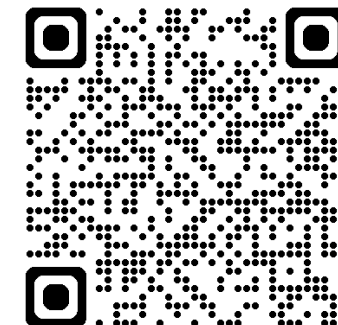
[https://web.eecs.utk.edu
~kaisun/FOTF/index.htm](https://web.eecs.utk.edu/~kaisun/FOTF/index.htm)



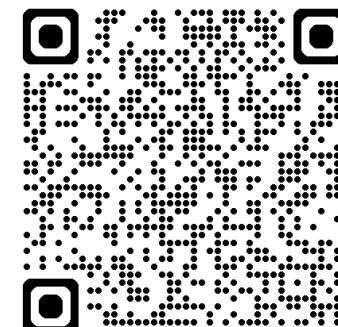
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Oscillations Task
Force \(FOTF\):
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Recordings available at TF
YouTube Channel
[@IEEEPESForcedOscillation
sTF](#)



All cases now hosted
on IEEE DataPort:





Liaison Update: NERC Synchronized Measurement Working Group (SMWG)

- Current Work Items:

- **Measurement-Based Interpretation of Oscillation Severity and Reliability Impact (Volunteers Needed)**

- ✓ This work aims to develop interconnection-wide and Reliability Coordinator-level guidance for interpreting oscillation severity using synchronized measurements.
 - ✓ The goal is to enable operators and planners to distinguish benign oscillations from those requiring operational awareness, coordination, or corrective action.

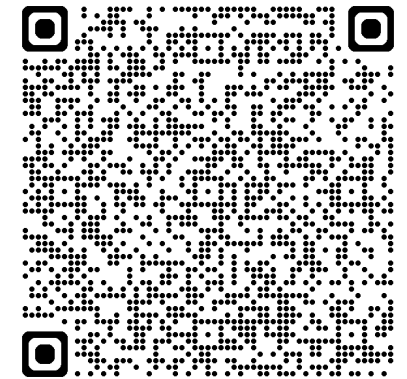
- **IBR-Driven Inertia Risk Awareness Using Synchronized Measurements**

- ✓ This work focuses on interconnection-wide and Reliability Coordinator-level awareness of inertia-related frequency-performance risks using synchronized measurements.
 - ✓ The goal is to support the identification, assessment, and mitigation of inertia-related frequency performance risks as inverter-based resources displace synchronous generation.

- Interested in Joining/Contributing?

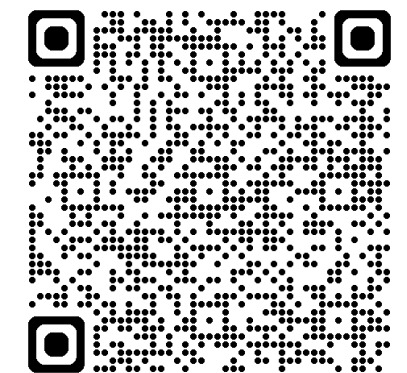
- Contact Kat Sico (kat.sico@duke-energy.com) or Nadia Smith (nadia.smith@nerc.net)

Want to be added to
the SMWG Meeting
Distribution List?



Seen an oscillation?

Find out if it meets
the criteria for
SMWG reporting.



Thank you

