

Distribution Task Team (DisTT)

Update: April 13, 2022

Mission Statement

The mission of the NASPI Distribution Task Team is to foster the use and capabilities of networked PMUs at the medium-voltage distribution level, beyond the substation.

This group shares information in support of effective research, development and deployment of distribution PMUs.

We aim to create a community to solve technical and other challenges specific to distribution PMU technology and applications.



2021 Activities



- DisTT provided feedback to Quanta / ORNL / SDG&E study on distribution system applications for synchronized measurements
 - The report has been finalized and was released in September 2021.
 This will likely have influence on future working plans for the DisTT.
- DisTT is providing input to IEEE Working Group C41 on requirements for distribution PMUs (contact: Ken Martin)



Ongoing Interest:

Characterize **use cases** for synchronized measurements in distribution systems, and associated requirements

We try to gather information about:

- types of measurements and their uses
- the measurement environment and its impact on PMU performance requirements
- applications and their data needs.

Priority: field-deployed applications

but information about lower-TRL research applications is also relevant.

How are you using synchronized measurements in your distribution system?



Different Types of Requirements for Measurement Data



- What are the requirements of sensor hardware and the data infrastructure to support a given application?
- How should these requirements be quantified and formalized?
- Where do various applications presented at this WG meeting fit?



2022 & Future Activities

- Presentations on monthly calls about new synchronized measurement applications and implementation experience
- Develop a proposal for work with S&C in **Distribution PMU Network simulation** and applications of technology for PMU fault location.
 - Methods of **fault location** using PMU's. PMU Accuracy & data rate requirements?
 - Inverter Based Resource (i.e. emerging tech in microgrids, battery energy storage, and large scale wind/solar) performance observation and minimum data rates?
 - Research available information on NREL to compliment this work.
- Thoughts on creating a "train the trainer" workshop on distribution applications for utilities?
- Interactive study with public data on <u>ni4ai.org</u>



Joint calls with CRSTT: fourth Wednesday at 1 pm Pacific / 4 pm Eastern Next call: Wednesday, April 27 at 1 pm PDT / 4 pm EDT / 20:00 UTC

Distribution Task Team Contacts:

Sascha von Meier, Ph.D Adjunct Professor, Electrical Engineering and Computer Science, UC Berkeley vonmeier@berkeley.edu

Dan Dietmeyer, MSEE, PE Team Lead – Transmission Protection, Automation, and Control Engineering, SDG&E <u>ddietmeyer@sdge.com</u>

Teresa Carlon, NASPI Teresa.carlon@pnnl.gov

