



# GPA PQ Dashboard User's Group Meeting

## PQDashboard

### Hosted by:

Electric Power Research Institute

- Program 1: Power Quality
  - Project Set B: PQ Monitoring, Data, & Analytics

### Host:

Tom Cooke, EPRI

12 May 2021

### Web Ex Controls at the bottom of your screen



#### AGENDA

- ▶ 1:00 – Introductions & Overview
- 1:15 – User Updates
  - TVA PQ Project Update
  - Using miMD for PRC-002 Compliance
  - GTC Fault Trace Tool & EDDC Project
- 2:15 – What’s New in PQ at GPA
- 2:30 – TrenDAP Demo
- 3:00 – Break
- 3:15 – EPRI Update
  - TrenDAP Project
  - Cap Bank Analytics Improvements
  - SPC Tools
- 3:45 – OpenMIC Improvements
- 4:00 – Roundtable and Open Discussions
- 5:00 - Adjourn



*“There’s no one of us as smart as all of us together. We value your feedback.”*

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# Welcome & Introductions

## #Chat @Everyone

### Chat Introductions: *Name, Affiliation, Email*

#### Chat Guidance

#Chat: #<topic> to start a new thread

#Chat: #<previous topic> to respond to an existing thread

#Chat: #<previous topic> @<name> to respond to a specific person's post

#Chat: Enter "Q:" at the beginning of a question for the current speaker

#PQData: Before smart meters, I believe PQ data sets were usually the longest-running and largest at most utilities. So, we were "Big Data" before that was cool.

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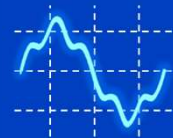


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# AGENDA

- 1:00 – Introductions, Agenda Review, and EPRI Plans Tom Cooke
- 1:15 – User Updates
  - TVA – PQ Project Update Tony Murphy
  - Using miMD for PRC-002 Compliance Phillip Crittenden
  - GTC Fault Trace Tool & EDDC Project Lori Hartzog
- 2:15 – What’s New in PQ at GPA Russell Robertson
- 2:30 -- TrenDAP Demo Billy Ernest
- Break
- 3:15 – EPRI Update
  - TrenDAP Demo Project Tom Cooke
  - Cap Bank Analytic Improvements Gaurav Singh
  - SPC Tools Tom Cooke
- 3:45 – openMIC Improvements Christoph Lackner
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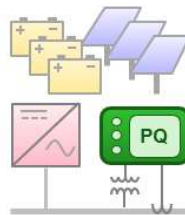
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# Quick Overview: 2021 PS1B Projects



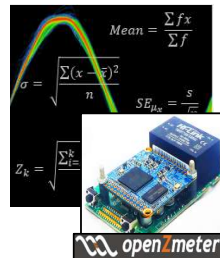
## *P001.004: PQ Waveform Signature Analytics & Repository*

- **Objective:** Develop a method for collecting and accessing large amounts of PQ data for AI learning
- **Description:** Build infrastructure for offering access to the disturbance library and continue to grow with metadata.
- **Deliverable(s):** Disturbance Library Web Portal (Website)



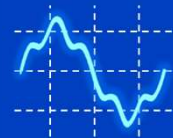
## *P001.005: DER Automated Performance Analysis Monitoring*

- **Objective:** Develop an analysis tool for processing standards for DER interconnections and interoperability.
- **Description:** Create an area within the PQ Dashboard suite of tools to process, alarm, and notify of monitored DER sites that are outside standards for grid interconnection.
- **Deliverable(s):** Open PQ Dashboard: DER-PQ (Software Component)



## *P001.006: Fulltime Waveform Analysis Field Deployment using OpenZmeter*

- **Objective:** Assess value and methods of measuring sub threshold waveform variants, for increased incipient fault detection
- **Description:** Field deployments of the open PQ monitoring system (oZm) to assess the performance of the new cyclic histogram and jolt algorithm for incipient fault detection.
- **Deliverable(s):** (Tech-Report) Value and Methods of Continuous Waveform Capture for Improving PQ Measurements



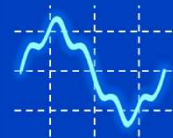
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# User Updates



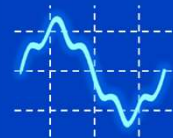
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# What's New in PQ at GPA



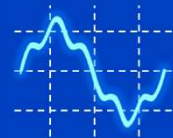
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**TrenDAP**  
open-source trending-data analytics platform



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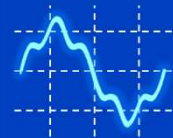


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# PQ:SPC Tools

Statistical Process Control for Interval Data Alarming





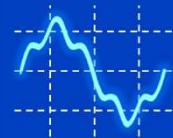
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# OpenMIC Improvements



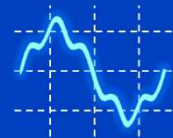
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# Roundtable and Open Discussions



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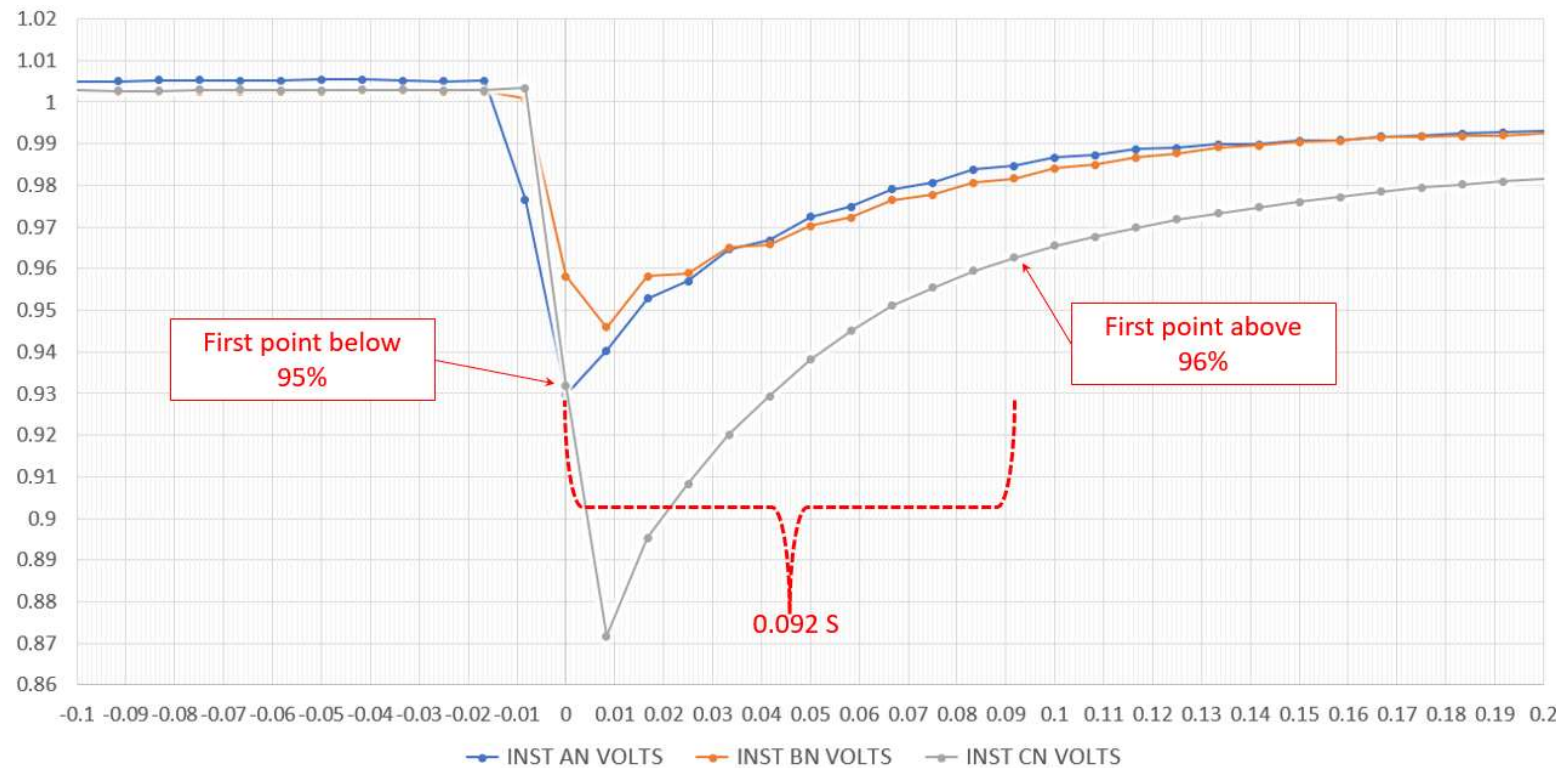
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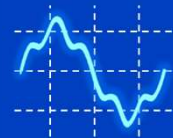


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# OpenXDA: Method of Measuring Duration



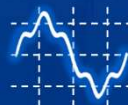


# Power Quality

Together...Shaping the Future of Electricity



Transmission &  
Distribution PQ



PQ Data &  
Analytics



PQ  
Compatibility



PQ  
Knowledge



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