Engineering Analysis Task Team

Evangelos Farantatos (EPRI) – Co-Lead

Matthew Rhodes (SRP) – Co-Lead

NASPI Workgroup Meeting Break-Out

April 4-5, 2023

EATT Mission Statement

1. Proliferate the development, testing, and validation of engineering applications and data analysis methods that use synchronized measurements systems.

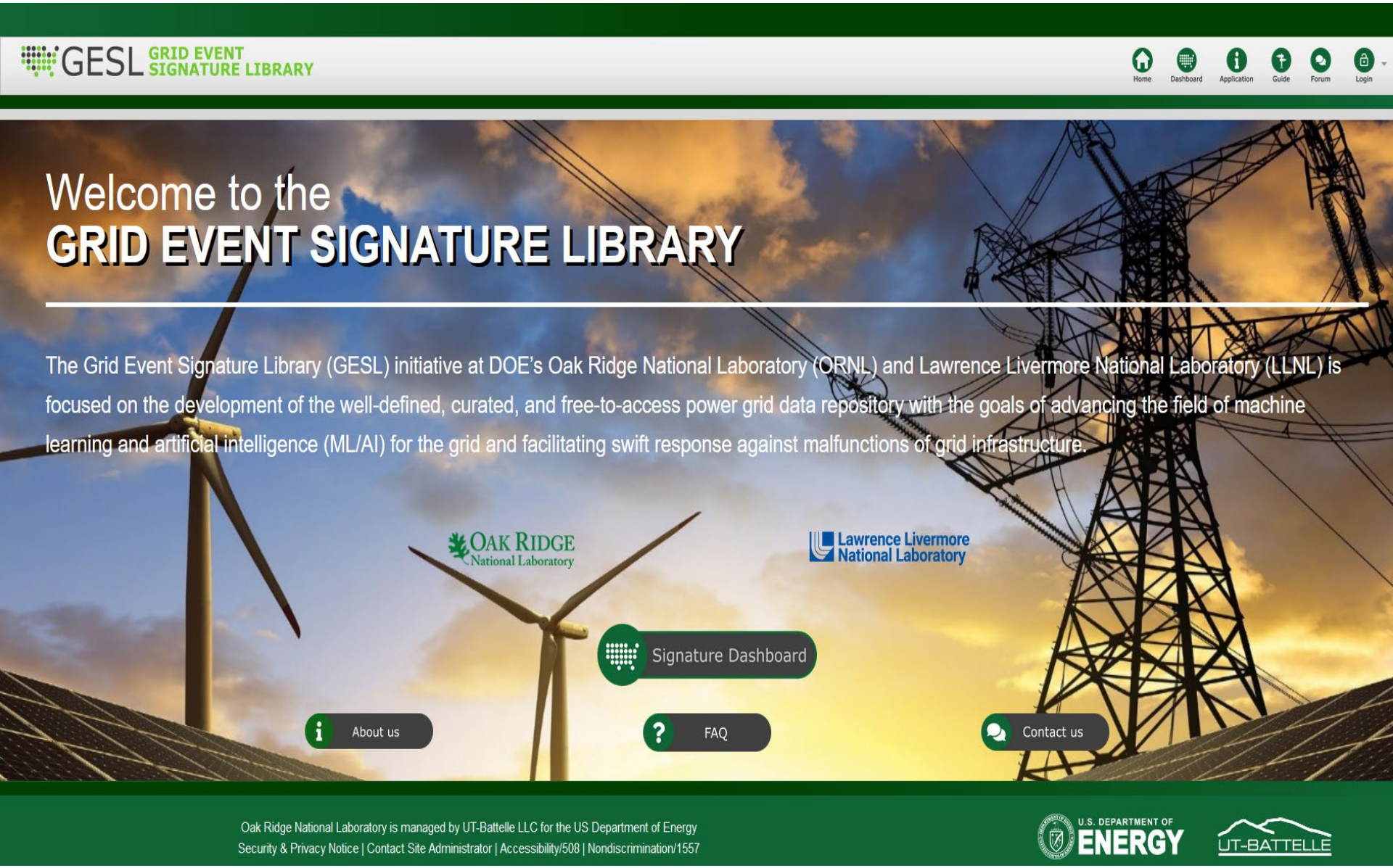
2. Assist in the deployment and utilization of synchronized wide-area measurement applications.

3. Formulate and guide recommended R&D activities related to the advancement of wide-area synchronized measurement systems and their applications.

EATT Break Out Agenda

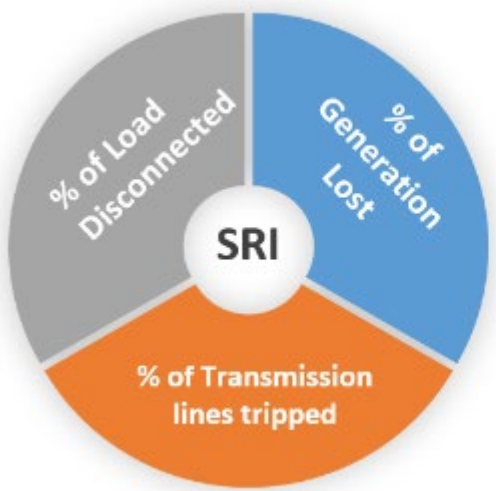
- 3:00-3:15 Introduction to the EATT and Round table introductions
- 3:15-3:45 **Special Guest Presentation:** The Grid Event Signature Library: A Centralized Repository of Power System Waveform Data
  - Aaron Wilson (Oak Ridge National Laboratory) and Jhi-Young Joo (Lawrence Livermore National Laboratory)
- 3:45-4:15 **Special Guest Presentation:** The Use of High-Speed Synchronized Measurements to Create Dynamic Indicators of Grid Resilience
  - David A. Schoenwald (Sandia National Laboratory)
- 4:15-4:25 Edge Computing Survey Results
- 4:25-4:35 Advanced Model Validation & Calibration White Paper update
- 4:35-5:00 What do you want to see for the future of EATT?

Grid Event Signature Library

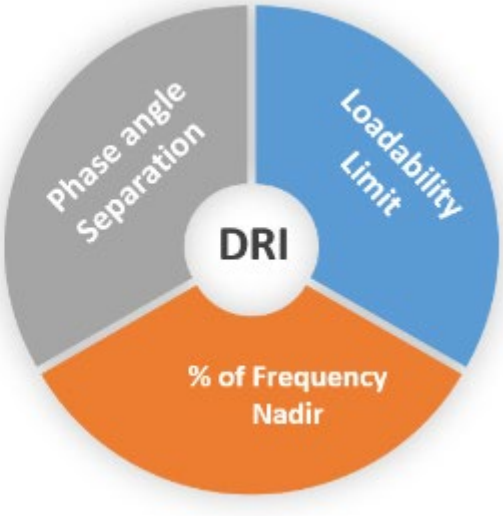


The Use of High-Speed Synchronized Measurements to Create Dynamic Indicators of Grid Resilience

Severity Risk Index

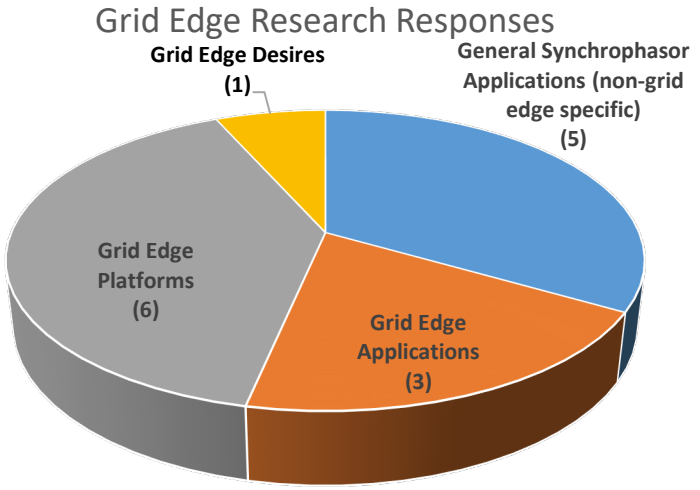


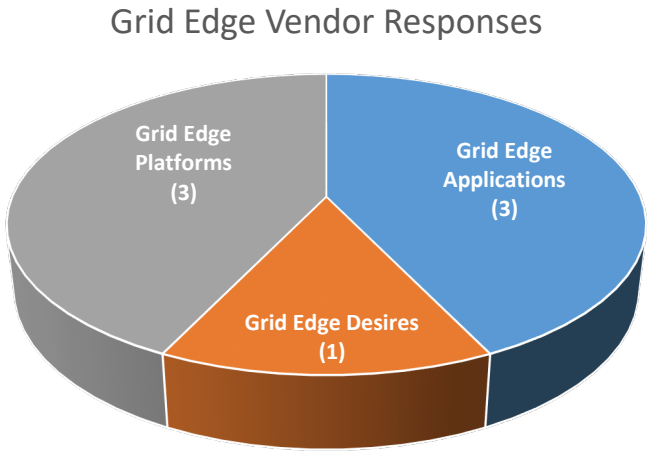
Dynamic Resilience Indicator



EATT Edge Computing Survey

- EATT released a survey to develop a beginning understanding of edge computing techniques and how synchrophasor data can contribute to such technologies.
- The survey was sent to 3 types of entities and included one question seeking expertise and knowledge on existing or in-development synchrophasor edge computing applications.
  - Research
  - Vendor
  - Utility





Main results demonstrate an underlying challenge to understand the true definition of "grid edge" and the lack of a well-defined category of applications.

Advanced Model Validation & Calibration

- EATT White Paper
- Lead: Honggang Wang (previously with GE)

Objective: Document industry advancements in model validation and calibration

Drafting has been completed

What do you want to see from EATT?

- **Synchrophasor Edge Computing White paper – Is this of value to the NASPI community?**
- **IBR Performance Monitoring Analytics and Tools – Data, ML analytics and BES impact identifications – Can synchrophasors help and what type of application is needed?**
- Other Ideas for EATT products?