Engineering Analysis Task Team

Evangelos Farantatos (EPRI) – Co-Lead

Matthew Rhodes (SRP) – Co-Lead

NASPI Virtual Meeting

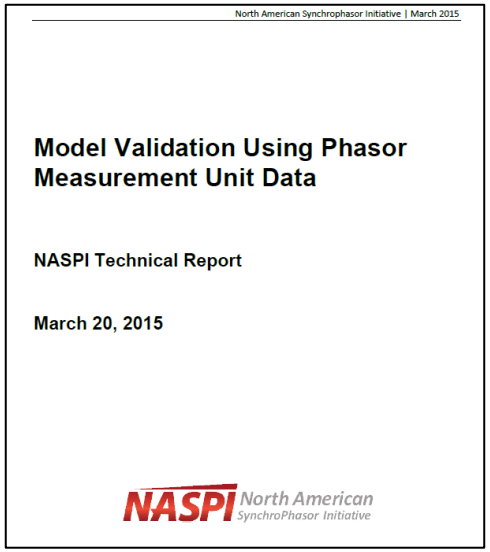
April 13, 2022

New Mission Statement

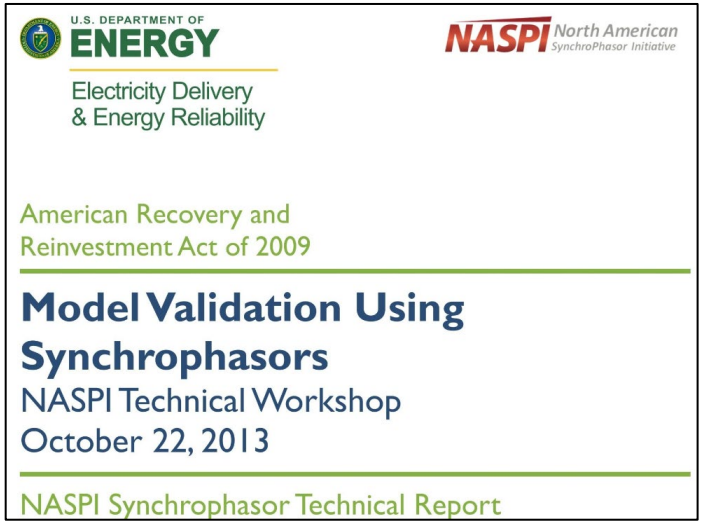
1. Proliferate the development, testing, and validation of engineering applications that use synchronized measurements systems.
2. Assist in the deployment and utilization of synchronized wide-area measurement applications.
3. Formulate and guide recommended R&D activities related to the advancement of wide-area synchronized measurement systems and their applications.

Advanced Model Validation & Calibration

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



Objective: Document industry advancements in model validation and calibration



Outline & Progress

White Paper Link

- Chapter 1
  - Section 1.2 to be completed
- Chapter 2
  - Completed section 2.2
    - Neeraj Nayak (EPG)
    - Mani Venkatasubramanian (WSU)
    - Urmila Agrawal & Pavel Etingov (PNNL)
- Chapter 3
  - Completed section 3.1
    - Junbo Zhao (UConn)
    - Junjian Qi (Stevens Inst. Tech)
    - Honggang Wang (GE)
  - Completed section 3.2
    - Renke Huang (PNNL)
    - Junjian Qi (Stevens Inst. Tech)
  - Section 3.3 to be completed
    - Honggang Wang (GE)

Outline & Progress

White Paper Link

- Chapter 4
  - Completed section 4.1
    - Honggang Wang (GE)
  - Section 4.2 to be completed
    - Kaveri Mahapatra (PNNL)
  - Section 4.3 to be completed
    - Kaveri Mahapatra (PNNL)
  - Completed section 4.4
    - Honggang Wang (GE)

Target completion by October 2022

EATT Edge Computing Database

- Create a living document/database for industry on education and real-world applications of Edge Computing applications
- Provide expert knowledge of edge computing common applications based on a foundational definition:
  - Edge computing is computing that is done at or near the source of the data excluding cloud or remote data center computing.
  - Examples
    - Computations on the PMU directly
    - Computations on a substation synchrophasor device/server or on a field device
- Approach
  - Industry survey to collect real-world examples
    - Vendors – Commercially available or in development
    - Research institutions – What is being researched
    - Utilities – What is currently in use (proprietary systems for sharing of information only)
  - Development of edge computing knowledge including:
    - Types of edge computing
    - Hardware, software and network needs