

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

NERC Update North American Synchro Phasor Initiative

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to ensure
the reliability of the
bulk power system

NERC's Focus on Synchro Phasor Technology

- Important to reliability
 - Application of technology improves bulk system reliability
- Coordination with DOE efforts
- Moving the technology into mainstream operations across North America
 - Incubate but not operate
- Grid Protection Alliance
 - Agreements in place with focus on common applications and infrastructure

- NERC supported open-source data concentrator software adopted at three nodes, including a WECC node
 - Developed at TVA and now managed by Grid Protection Alliance
 - With the help of WECC and the DOE SGIG, we have met this goal (MISO, PJM, & BPA)

Technology and Reliability

- Significant reliability benefits
 - Operational monitoring
 - Bulk Power System control
 - System analysis and planning
 - Smart grid integration
- Potential to improve operational planning and control room operations
- Increasing use for operational decisions or automated intervention will bring new challenges
 - Need to understand and manage those challenges

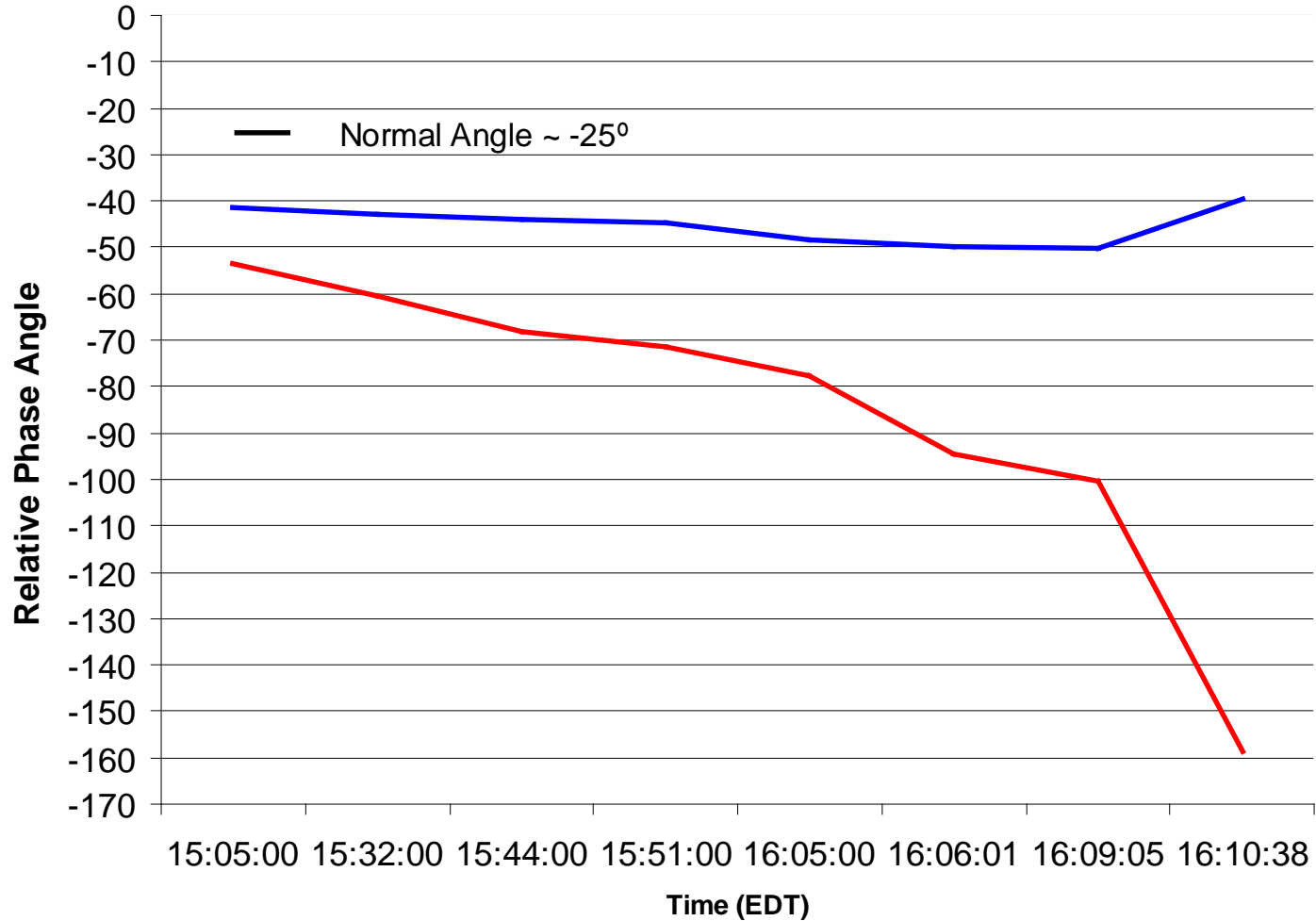
Executive Steering Group

- NERC goal
 - Move phasor technology into mainstream of industry acceptance, use, and ownership
 - Five year time frame
- Executive Steering Group
 - Includes SGIG awardees
 - Goal – encourage, accelerate, and guide the implementation of synchro phasor technology
 - Assist NERC in achieving its goal
 - Ensure underlying infrastructure is supported

Future Direction

- NERC, DOE, and industry partnership is essential to achieve full potential – research to implementation
- Installing PMUs and standing up data concentrators
 - NERC and DOE SGIG funding
- Sharing the data across the interconnections
 - NASPInet and data gateways (protocols and hardware)
 - WISP
- Standards needed
- Base lining and benchmarking
- Research and advanced application development

Questions



Reference:
Browns Ferry

— Cleveland — West MI