

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

NERC's Vision – Synchro Phasor Technology

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to ensure
the reliability of the
bulk power system

Recognition by NERC

- NERC involvement
 - Early involvement in concert with WECC
 - Installation of data concentrator at TVA in the Eastern Interconnection
- Value to the industry
 - Diverging phase angles on the afternoon of August 14, 2003 in post blackout analysis – could have provided operational insight
 - Possibility of expanded role of synchro phasor technology into other advanced applications
 - Operational monitoring – frequency, phase angle, etc.
 - Intelligent and adaptive islanding
 - Inter area oscillations
 - Smart Grid applications
 - Event analysis

Present Day Involvement

- Supporting the NASPI community
 - NASPI meetings provide forum for the advancement of the technology
 - NASPI executive steering group
 - Allocation of budget dollars
- Coordination with DOE and Smart Grid Investment Grants
- Supporting underlying infrastructure through contract with Grid Protection Alliance
 - Phasor measuring unit (PMU registry)
 - Data concentrator test bench
 - Development of communication gateways via NAPSInet protocol concepts

- Transfer technology into operational environments
 - Incubate not operate – 5 year plan with Grid Protection Alliance
 - Industry funded based on value in technology and related tools
 - Possible need for standards – IEEE, NERC, others
 - Data requirements, communications, etc.

- Synchro Phasor technology has the potential to change the control room operational environment like no other technology since implementation of state estimator technology
- NERC is very supportive and sees great benefit in the broad application of the technology within the next ten years.