Task Team Goals

NERC NASPI Planning Implementation Task Team

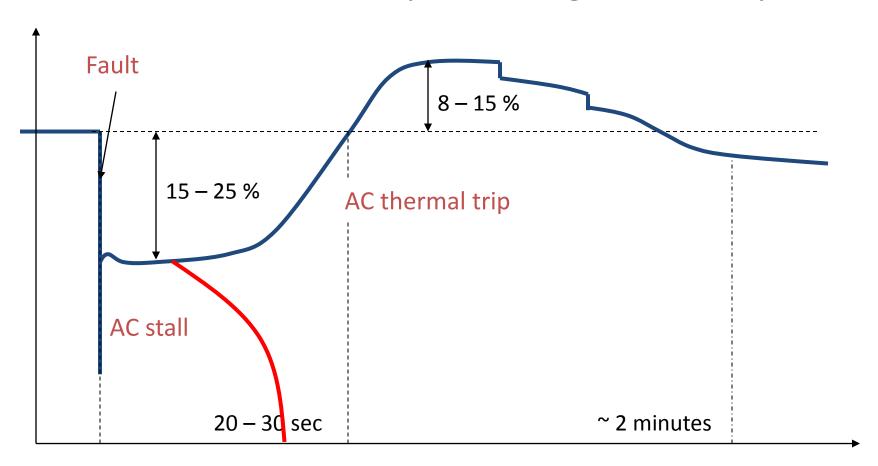
June 2012

PITT Goals

- Power system performance baselining, data mining, event analysis
 - Voltage stability analysis
 - Oscillation analysis (Inter-area oscillations, Forced oscillations)
 - Frequency response analysis
- Synchro-phasor data validation and conditioning
- Model validation
 - Power plant model validation
 - System model validation
 - Load modeling and characterization
- Technical studies to support the development of operating procedures

FIDVR Awareness

Fault Induced Delayed Voltage Recovery



How to Recognize FIDVR

SCADA Data 1.08 Known information 1.06 **Noltage (p.u.)** 1.04 Fault on system SCADA(Valley 115kV) CB's opened normally SCADA(Valley 500kV) 0.98 3:36 PM 3:50 PM 4:04 PM 4:19 PM 4:26 PM 4:48 PM Time (hh:mm) SCADA resolution PMU Data (3:41:57 to 3:42:47) 1.10 not sufficient for 1.05 FIDVR events 1.00 **Noltage (b.u.)**0.90
0.85 assessment SCADA shows the PMU(Valley 500kV) high voltage point 0.80 MU(Valley 115 kV) $(\sim 1.09 \text{ p.u.})$ 0.75

Tony Johnson, SCE, presentation at NERC OC meeting December 7, 2010

35

45

30

0.70

10

15

20

25

Time (Sec)