August 14, 2003
Lessons Learned

Harvard Electric Policy Group
March 1, 2004
Pete Landrieu – PSEG (Retired)
Chairman MAAC
Investigation Organization Overview

Steering Group
P. Barber

Investigation Team
D. Hilt

U.S – Canada
Task Force

Vegetation/ROW
Mgmt.
A. Silverstein

Project Planning and
Support - Gerry
Cauley/Jim Dyer

Root Cause Analysis
Cooper Systems
Cooper Systems/Joe Eto

Report Preparation
TBD/ D. Nenius

MAAC/ECAR/NPCC
Coordinating Group
C. Durkin

NERC & Regional
Standards/Procedures
& Compliance
E. Hulls/M. Delaurs & V.
Subberger

Operations - Tools,
SCADA/EMS
Communications Op
Planning
V. VanZandt & T
Kucel/D. Benjamin

Transmission System
Performance,
Protection, Control
Maint. & Damage
R. Stuart/John Theotonio

MAAC
P. Landrieu

Sequence of Events
J. Robinson /M. Sidor

Frequency/ACE
Carlos Martinez/Tom
Vandervort

Generator
Performance, Protection,
Controls
Maint. & Damage
Garry Bullock/Gordon
Scott

ECAR
P. Mulchay

Data Requests and
Management
J. Dagle / J. Emde

System Planning,
Design, & Studies
F. Macedo/J. Twitchell

NPCC
C. Durkin

System Modeling and
Simulation Analysis
B. Metelatad/R.
Cumming
Positive Outcomes

- NERC/FERC/DOE - a new synergy
- Weakness of past (voluntary) model evident.
- Alternatives to legislation emerge.
- Recognition that industry application of best practices has been inconsistent, time-wise and region-wise.
Myths and Truths

- Too little transmission
- Deregulation caused the blackout
- Scope is unimportant
- Independent oversight is unnecessary

- Too few markets
- Poor execution caused the blackout
- Too many too small control areas
- Need for a 2nd set of eyes.
déjà vu
all over again

• Nuclear Industry parallel – INPO
August 14 Implications

- Generation and transmission infrastructure was adequate on August 14.
- O&M execution needs to be addressed.
- Need for large regional grid planning and operation - voltage collapse and dynamic instability occur over large areas.
- Too many, too small control areas.
- Need for an independent 2\textsuperscript{nd} set of eyes.
- Large security constrained dispatches internalize loop flows, automate congestion management and reduce communications challenges.
Q&A and Comments

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