INTERCONNECTION STUDIES

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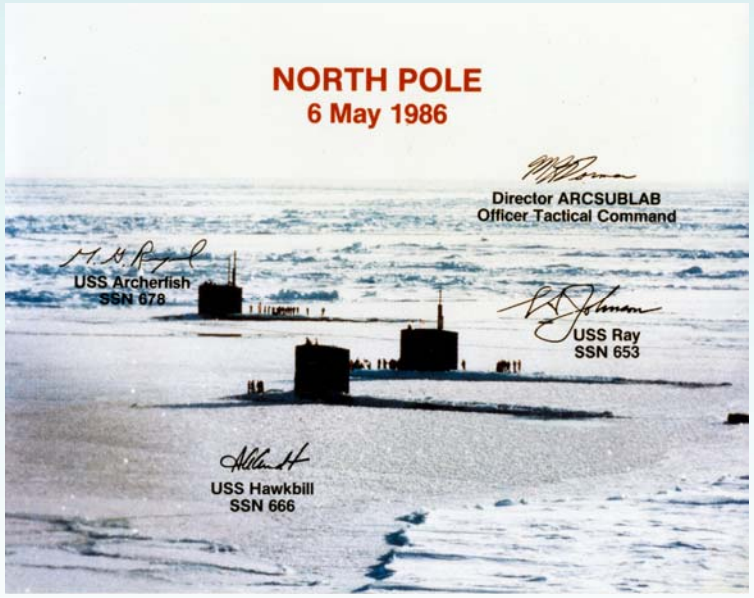
Introduction

Scope – We are going to do a generic interconnection study in real-time, as a group, using Simulator

Objective – I'm hoping we can collectively improve both our skills and our studies through a rousing discussion

Who am I?

- Senior Engineer at ECI
- Avista Transmission Planning
- Hewlett Packard / Agilent Technologies
- Nuclear Navy



ELECTRICAL CONSULTANTS, INC.

Ground Rules

- Conversations about other stuff – outside
- Conversations about this stuff – please do
- Need help? “One of One please”
- If we go on and on and on – Horse
- If we get lost and stay lost – Bunny
- Eating candy is acceptable

Audience Participation

For each major topic I present:

- Ponder a favorite or important tidbit
- Offer to present your tidbit
- I'll ask one or two of you to come and chat

We'll all improve because of you

What do we need to get started?

Our Case for Today

- Synthetic Power System Model
  - No CEII
  - Good for all kinds of analysis

Prepare the Case

- Save a copy
- Summary
- Limit Monitoring
- Check Slack
- Check Contingencies
- Oneline
- What else?

Adding the Generator

- Tap the Transmission Line
- Add the Generator Bus
- Add a Line to the Gen Bus
- Add the Generator
- Decide on Dispatch

PTDF

- Sensitivity to the new generator
- Run it
- Look at it on the Oneline

Available Transfer Capability

- Excellent tool for finding a starting place
- Developers (FERC 845) appreciate results
- Pointer to Corrective Action Plan

PV Curve

- What does voltage do when MW output increases?

QV Curve

- What does voltage do when Mvar load increases?

Contingency Analysis

- ATC MW level
- AVR 0.95 boundary @ current Vpu
- Limit Monitor to 80%
- What do you do with the Data?

Questions?