

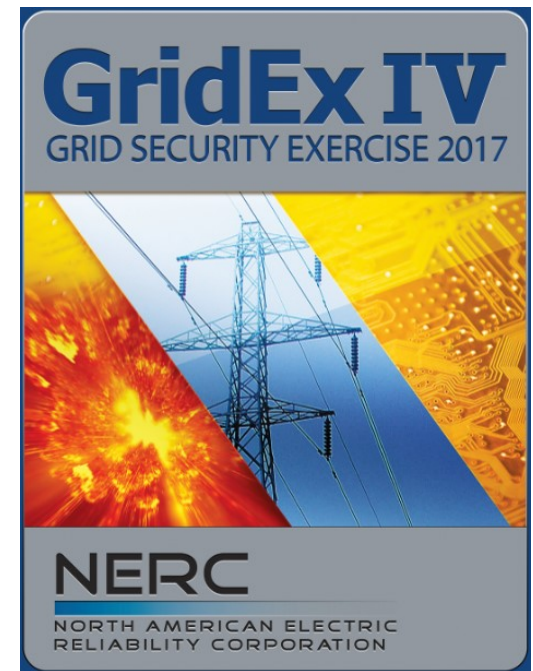


# GridEx IV Overview

November 15 & 16, 2017

# Grid Ex IV

- NERC sponsored utility, security, and crisis response exercise
- Improve capabilities to respond and recover from disruption to the North American bulk electric system
- Strengthen crisis communications partnerships



# Exercise Participants



# Utility Participants



# Avista's Planning & Participation

- Planning initiated in January 2017
- 12 planning team meetings
- 20+ departmental meetings
- Labor hours – 1000+ hours
- 11 departments & 40 Avista employees
- Electric System Operations real-time simulation
- 50 Planners, Players, and Observers



# Avista's Objectives

- Demonstrate ability to respond to cyber & physical attacks
- Demonstrate coordination capabilities
- Improve incident response plans
- Engage internal departments
- Engage external stakeholders

# Scenario

- Cyber Attack
- Physical Attack
- Communications Challenges



Inject #	Recipients	Time	Event	Expected Player Action
1.3.1GCon	Gas Control	0610	The Operations Support Manager instructs Gas Control to call out an additional Controller so that the outgoing Controller can be relieved for rest.	<ol style="list-style-type: none"> <li>1. Initiates an Arcos callout for a second Controller.</li> <li>2. Continue to monitor the news channel for information.</li> <li>3. Actively observe Control Room systems for unusual behaviours.</li> </ol>
1.3.2GCon	Gas Control	0615	Off duty Controller calls the Control Room to accept the Arcos call out and informs the Control Room that they will be there in approximately 30 minutes.	<ol style="list-style-type: none"> <li>1. Continue to monitor the news channel for information.</li> <li>2. Actively observe Control Room systems for unusual behaviours.</li> </ol>
1.4	Cyber Security	0620	Players from your corporate business functions report IT system failures (e.g., workstations, servers).	Begin IT service response. The incident is not yet presumed to be a security incident as there has been no anti-virus or intrusion detection system signature to detect the activity.
1.4.1Gas	Gas Control	0620	The Gas Controller notices that Service Suite and the Mobile Order Monitor systems are behaving oddly as indicated by flickering screens and items disappearing and reappearing in the dispatch application. This is quickly followed by the Citrix AFM screen going blue. The Event Database will not open. Arcos continues to function normally.	<ol style="list-style-type: none"> <li>1. The Controller calls Technical Support assistance.</li> <li>2. The Controller notifies the Operations Support Manager or Lead Controller of the issue based on the morning news report.</li> <li>3. The Controller prepares for the manual process for dispatching orders.</li> <li>4. Utilize the manual process for event log entries.</li> </ol>
1.4a	Gas Compliance	0620	Compliance Tech is logging into systems and realizes the systems are behaving oddly.	Gas Compliance Tech calls Technical Support. Line is busy and cannot get through. Compliance Tech Shutdown Computer and Reboots.



# Avista Participants

- SCADA
- Power Supply
- System Operations
- Corporate Communications
- Internal Communications
- Enterprise Technology
- Security
- Gas Compliance
- Facilities
- Gas Control

# Observers

- Washington UTC
- Idaho PUC
- Washington State Patrol
- Spokane County Emergency Management

# Day 1 – Simulate Failure

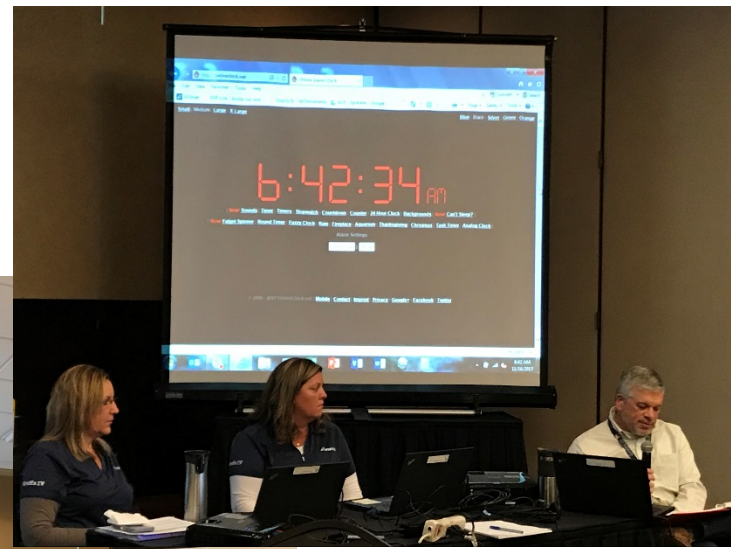
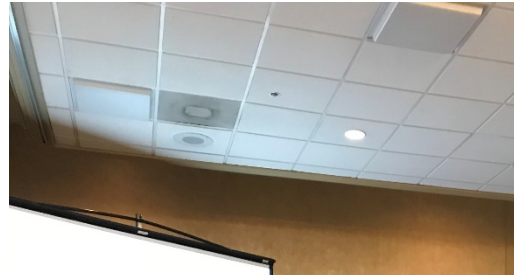




# Day 1 – Simulate Failure



# Day 2 – Restoration





# NGas Lessons Learned

- COMMUNICATION
- Odorizer backup battery life
- Backup Utility Center location(s)
- Satellite phones for Control Room
- Ability to see gas facilities on mobile devices
- Update Emergency & Business Continuity Plans



