

Outage Coordination Changes

How new compliance requirements are
driving changes to BPA's Outage
Coordination Process



Agenda

- Introduction
- What drives new Reliability Standards?
- What is the Reliability Coordinator's role?
- How does this impact BPA?
- How is Outage Coordination changing?

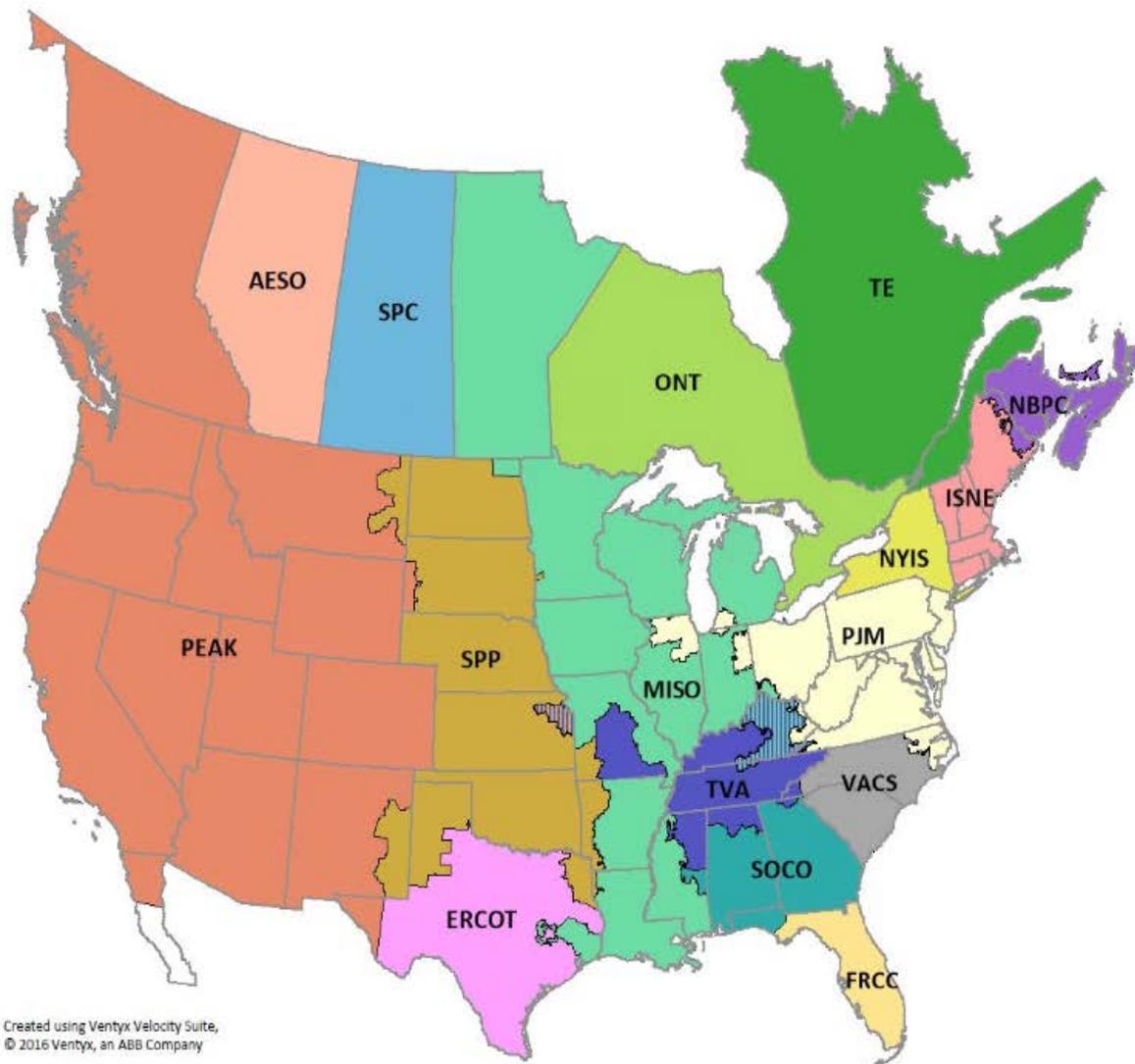
Introduction

- Tim Loepker, TORO
 - System Operations – Outage Office Supervisor
- A number of new and revised NERC Reliability standards are driving changes for the industry.
 - There are 22 new or revised standards effective 4/1/17
- Some standards that are driving changes to processes: IRO-017, IRO-010, PRC-005, TOP-001, TOP-002, TOP-003.
- IRO-017 is changing BPA's Outage Coordination Process

What drives new Reliability Standards?

- Example: September 8, 2011 San Diego Blackout
- WECC initiated event analysis, but eventually FERC/NERC took this over
- TOP/IRO project to draft new standards, consolidate some and revise others
- IRO-017 – Outage Coordination

The Reliability Coordinator's role



NERC Reliability Coordinators

As of June 1, 2015

- Alberta Electric System Operator
- Electric Reliability Council of Texas
- Florida Reliability Coordinating Council
- Hydro Quebec TransEnergie
- ISO New England, Inc.
- Midcontinent ISO
- New Brunswick Power Corporation
- New York Independent System Operator
- Ontario Independent Electricity System Operator
- Peak Reliability
- PJM Interconnection
- Saskatchewan Power Corporation
- Southern Company Services, Inc.
- Southwest Power Pool
- BAs receive RC services from SPP or TVA
- Tennessee Valley Authority
- BAs receive RC services from TVA or MISO
- VACAR South

The Reliability Coordinator's role

- Peak's directions include:
 - Data specifications
 - SOL Methodology
 - Peak Outage Coordination Process

The Reliability Coordinator's role

- Peak's Outage Coordination Process
- Peak's outage process finalized 10/3/16
- Specifies when outage are due to Peak and information that must be included
- Peak expects TOPs and BAs to coordinate prior to submittal to Peak (mentioned 42 times in the process document)

How does this impact BPA's process?

- Revisions
- Conflict Resolution
- Outage submission requirements

How is Outage Coordination changing?

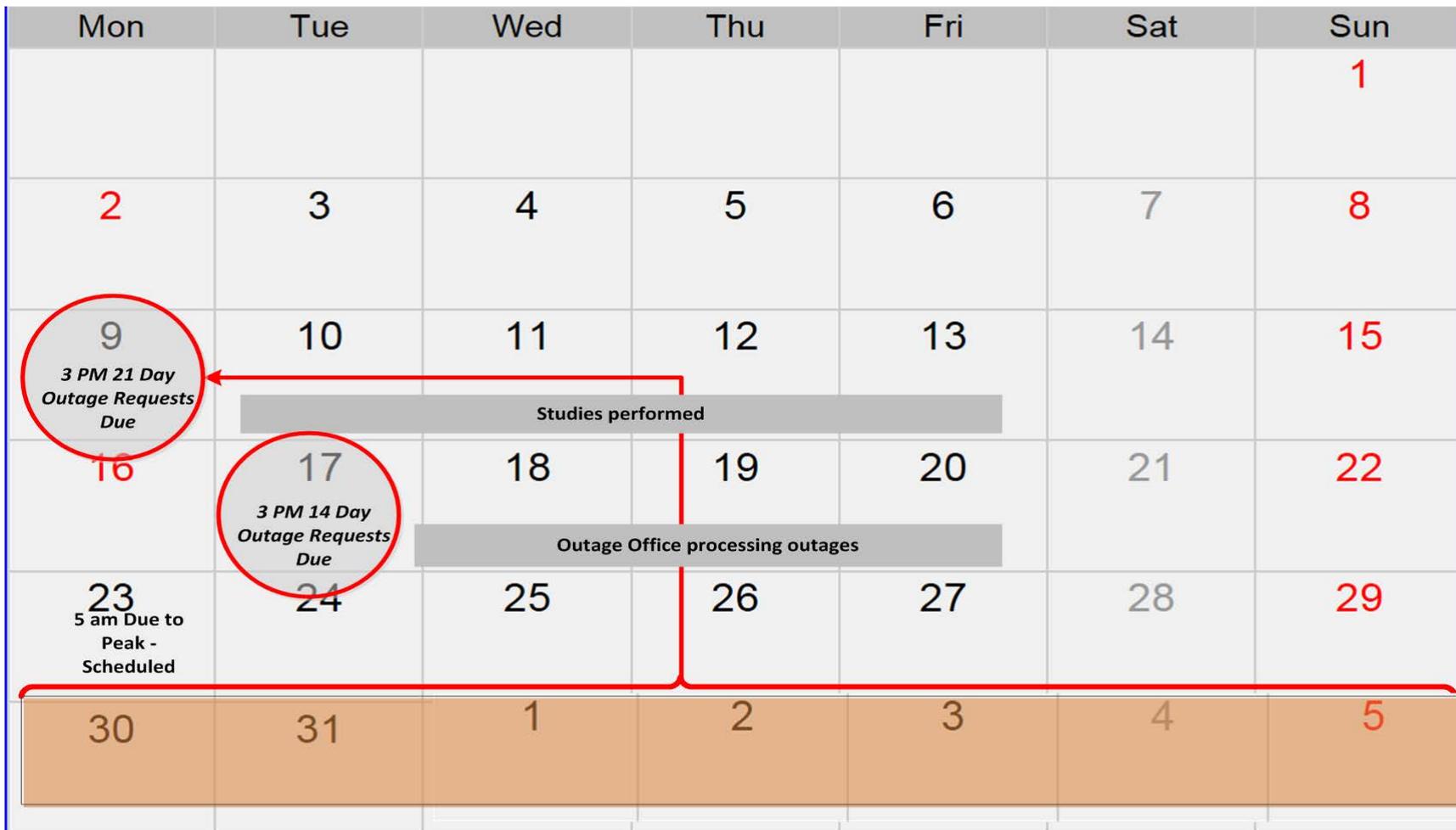
- To meet Peak's process and timelines, BPA will be changing the Outage Coordination Policy.
- Effective date is 3/21/17
- Peak's process requires more information from the Outage Office and Study Engineers
~and~
- Requires longer lead times for outage coordination

How is Outage Coordination changing?

Timelines:

- 45 Day requirement: The current Tier 1 and Tier 2 equipment will be re-labeled as “45 Day equipment”. 45 Day Equipment outage requests are required to be submitted 45 days prior to the month the outage is scheduled to start.
- 21 day requirement: BES equipment that is in-scope for the Outage Coordination process is required to be submitted 21 days prior to the Outage Week (Monday to Sunday) in which the outage is scheduled to start.
- 14 Day requirement: BES equipment that is out-of-scope for the Outage Coordination process required to be submitted 14 days prior to the Outage Week (Monday to Sunday) in which the outage is scheduled to start.

How is Outage Coordination changing?



How is Outage Coordination changing?

Outage Planning: Time-Stamp

- Peak's process includes conflict resolution process
 - Relies on a first-come, first-served model.
 - After outages are assessed by TO engineers, they can get a time-stamp with Peak
 - Includes assessment in the 45 day outage process.

How is Outage Coordination changing?

Outage Planning:

Can these Time-Stamp be a Benefit?

- These time-stamps can be a benefit to reward good outage planning.
 - Last minute outages (BPA or other utilities) must not interfere with other outages that have already been planned.
 - As emergencies can happen at any time, Urgent and Forced outages have priority.

How is Outage Coordination changing?

Outage Planning: Revisions

- Revisions are an important part of their process.
 - After an outage receives a time-stamp, any revision outside the original start and stop time, resets the time-stamp again.

How is Outage Coordination changing?

- Opportunity Outages
 - At Peak's deadline for BES outages, Outages are no longer considered Planned
 - Opportunity Outages – generally should be no longer than one day
 - Opportunity Outages – generally cannot require an Operating Plan

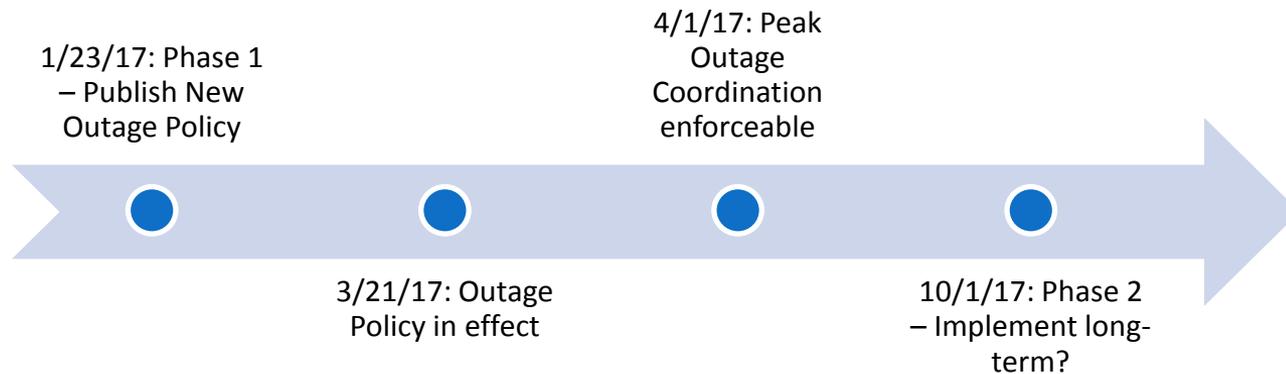
How is Outage Coordination changing?

Outage Planning: Long Range Process

- Peak's long-range process is not mandatory at first
 - Peak has indicated it may be mandatory 4/1/2018
 - BPA will need to meet this process in the future.

How is Outage Coordination changing?

Phased approach to prepare for Long-Range:



Questions?

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