WIRAB Webinar:
Operational Planning Analysis Process (Next-Day Studies) From RC, TOP, and BA Perspective

May 31, 2017

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California ISO

Outline and Introduction

- Brett Wangen – Peak Reliability, Director of Engineering
  - Operational Study Process Overview
  - Reliability Coordinator's (RC) Role
- Dede Subakti – California ISO, Director, Operations Engineering Services
  - Balancing Authority's (BA) Role
- Audience Q&A

Operational Planning Analysis Process (Next-Day Studies) From RC, TOP, and BA Perspective

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Director of Engineering, Peak Reliability

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Director, Operations Engineering Services, CAISO

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Operation Study Life Cycle

- Three distinct study phases
  - Seasonal
  - Outage Coordination
  - Operational Planning Analysis

- Up to 6 months in advance
- 3-14 days prior to Real-time
- Next-day Study

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RC-Wide Seasonal Study Process

- Peak maintains a seasonal coordination process which defines
  - Timelines
  - Study requirements
  - Coordination expectations
- TOPs perform SOL studies in conjunction with their Sub-regional Study Groups
- Identify system stability limits and seasonal TTC

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RC-Wide Outage Coordination Process

- Peak responsible for Outage Coordination (OC) process per IRO-017-1
- Key components of the OC plan:
  - Long range process (optional)
  - Short range process – typically requires 7-13 days advance notice
  - Outage submittal process to support various study windows

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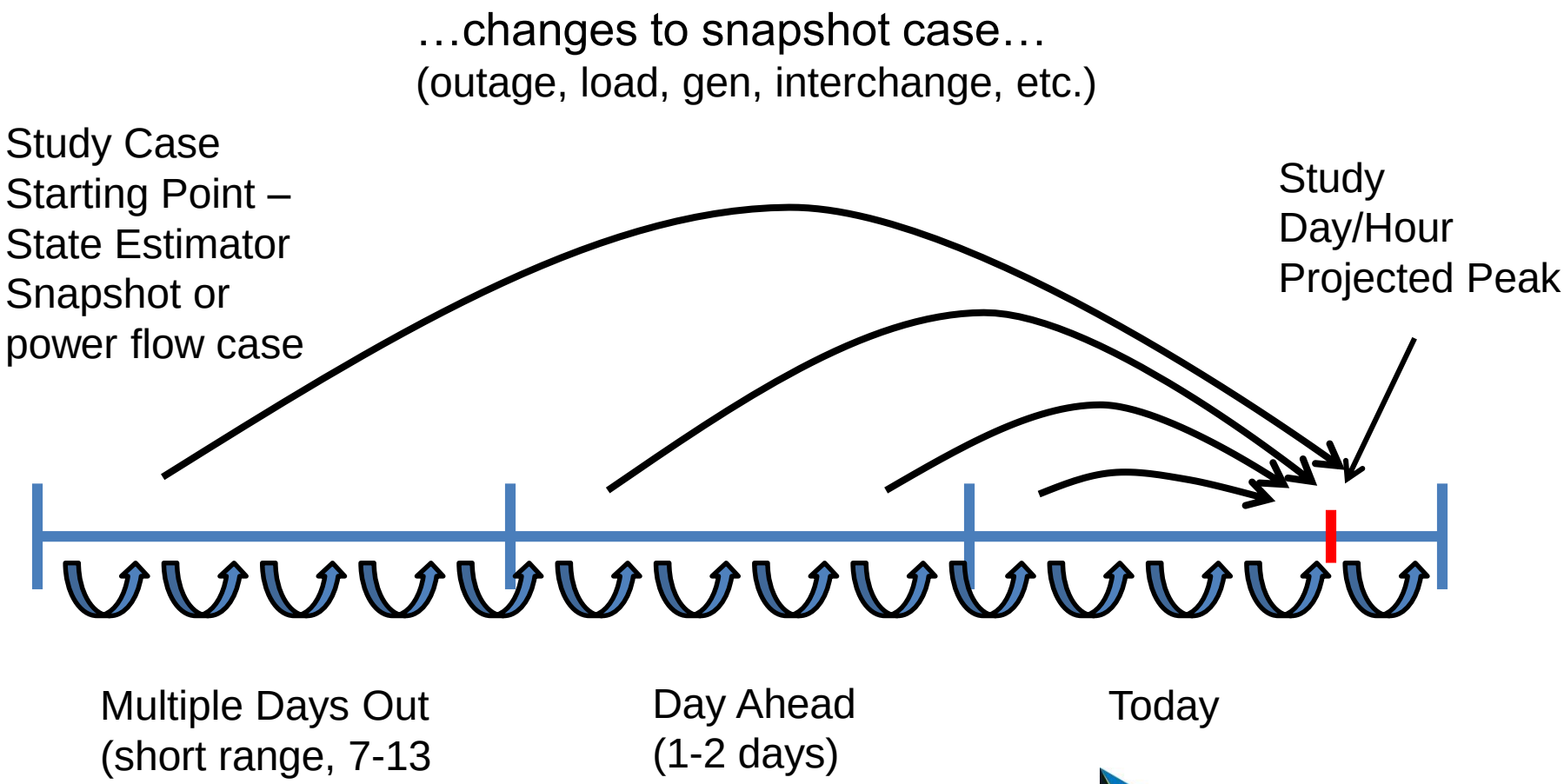
RC-Wide Outage Coordination and OPA Iterations



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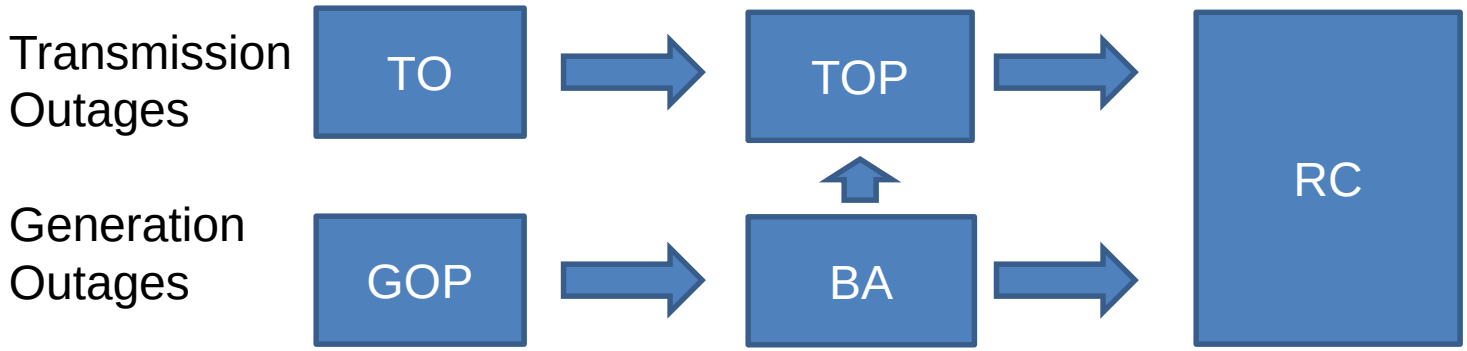
Outage Coordination from BA and TOP Perspective

- Outage submission to the RC



- BA assesses resource sufficiency to meet expected load during outage condition
- TOP assesses potential conflict and potential SOL exceedances during outage condition

Outage Coordination from BA and TOP Perspective

- Data needed to perform assessment:
  - Load Forecast for own BA and neighboring BAs
  - Generation outages for own BA and neighboring BAs
  - Expected generation commitment/dispatch for own BA and neighboring BAs
  - Transmission outages for own TOP and neighboring TOPs

Next Day Study (OPA) from BA and TOP Perspective

- Objective is to “fine tune” Operating Plan for next day:
  - BA assesses resource sufficiency
  - TOP assesses potential SOL exceedances
- Operating plan may include additional generation commitment, dispatch, transmission switching, etc

Next Day Study (OPA) from BA and TOP Perspective

- Data needed to perform Next Day Study is the same. It includes:
  - Load forecast
  - Generation outages
  - Transmission outages
  - Generation commitment/dispatch
- Results from BA/TOP assessments are uploaded to Peak Reliability dashboard

Next Day Study from RC perspective

- Identify potential SOL and IROL exceedances for the next day
  - Identify cascading risks
- Coordinate with impacted entities
- Develop mitigation plans
- Provide information to RC, TOP, and BA operators so they are prepared

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Study Coordination

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Operations

- Study Libraries
  - Entity Studies
    - Entity Studies Archive
    - Entity Studies-New
    - Entity Studies Archive New
    - COS Outages
  - RC Study Reports
  - Seasonal SOL Coordination
  - SOL Methodology
- Operating Libraries
- Coordinated Outage System

Entity Studies-New

The Entity Studies section serves as the Western Interconnection's single repository for housing near-term reliability study results from Transmission Operator (TOP) engineers.

It contains results for:

- Next-Day Studies
- Outage Studies

The tools and information on this page are restricted. Please ensure you are taking appropriate steps to ensure their protection.

Help Resources

Coming soon.

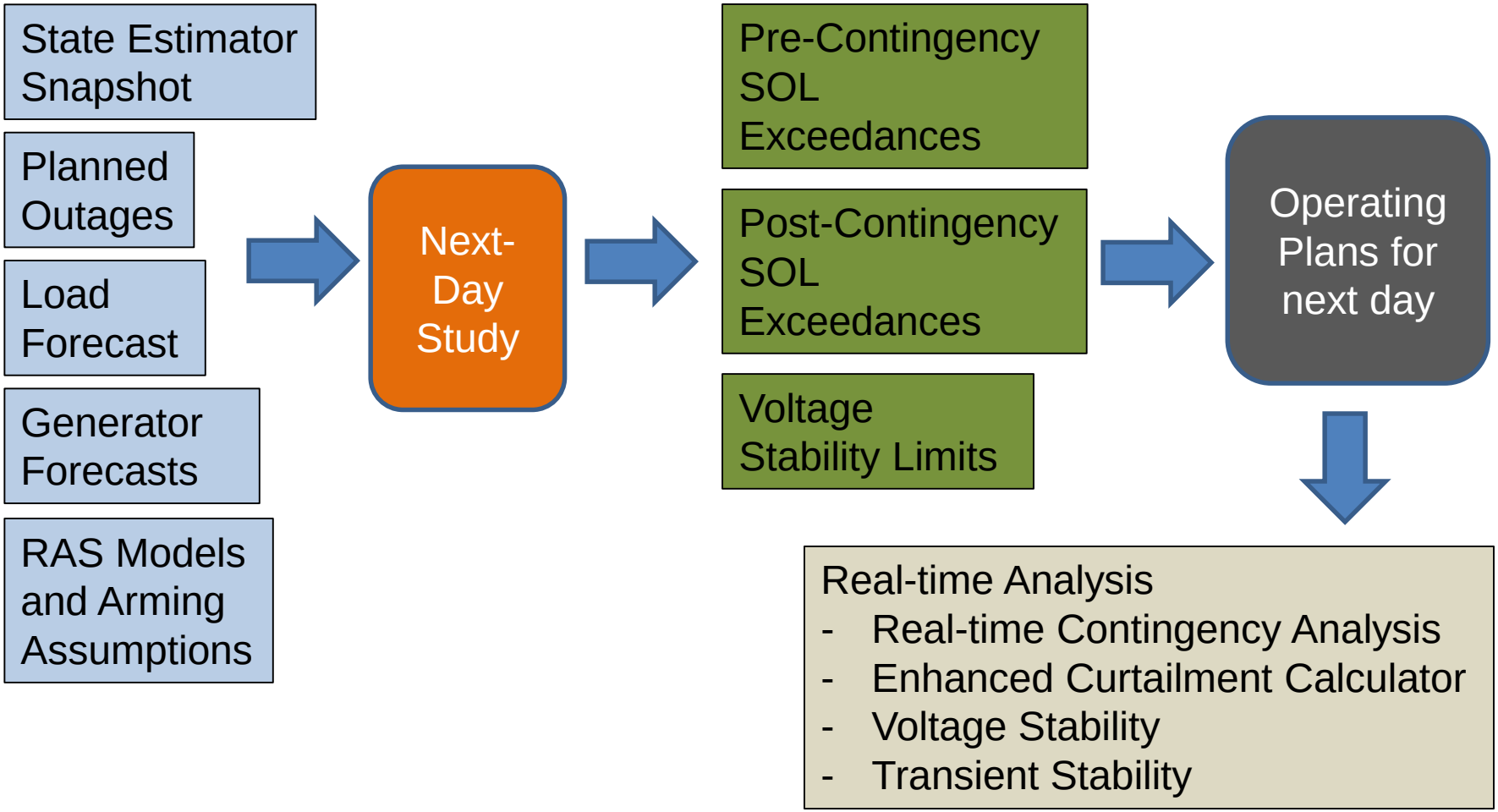
Manage/View Alerts

Location:

Current Day | Next Day | Current Week | Last Week | 2 Weeks | 3 Weeks | 4 Weeks | Other Docs | Upload Study

Type	Name	Entity	Entity Contact	Entity Email	Study Start	Study End	External Entity Impact	Operating Plan	Created
Entity : AEPC (1)									
	AEPCO OPA 05_19_22_2017	AEPC	Craig Bear	cbear@azgt.coop	5/19/2017	5/22/2017	No	No	5/18/2017 4:26 PM
Entity : AESO (1)									
	Study Results for PEAK RC Report 20170520	AESO		ops.coordination@aeso.ca	5/20/2017	5/26/2017	Yes	Yes	5/18/2017 4:11 PM
Entity : APS (2)									
	APS_Operating Memo_Liberty_PalmValley_Panda_230kv_Line_050817_Rev002	APS	Luis Leon	Luis.Leon@aps.com	5/12/2017	5/26/2017	No	Yes	5/12/2017 3:32 PM
	NDS Status Report_052217	APS	Bill Stimson	William.Stimson@aps.com	5/20/2017	5/22/2017	No	No	5/19/2017 2:17 PM

Critical Study Inputs & Outputs



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Peak Value Added to Reliability

- Data clearinghouse – enable better studies by TOPs
- Common set of expectations (across seasonal, outage, and next-day studies)
- Wide-area perspective in Peak's analysis
- Coordination and collaboration to resolve issues that impact multiple TOPs or BAs

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Challenges Remain

- Remedial Action Scheme arming status
- Input data quality
- Automation of study processes
- Measuring study quality
  - Drive continuous improvement

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Thank You

Webinar recording will be available at:

westernenergyboard.org/category/webinars/

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