



California ISO



RC West

RC West Oversight Committee

Public Session

Feb. 23, 2021

9:30 – 11:00 a.m. Pacific

Housekeeping Reminders

- This call is being recorded for informational and convenience purposes only. Please request permission from RC West before reprinting any related transcriptions.
- Materials related to the RC West Oversight Committee are available on www.caiso.com / Stay Informed / RC West.
- If you need technical assistance during the meeting, please send a chat to the event producer.

Agenda

Time*:	Topic:	Presenter:
9:30 – 9:35	Welcome/agenda	Kristina Osborne
9:35 - 9:45	Roll call	Ben Brandt - Chair
9:45 – 10:10	RC West Operations Update <ul style="list-style-type: none">• General operations• Procedures update• RC metrics update	Tim Beach, RC West Kathy Fernandez, CAISO Rachel Melton, CAISO
10:10 – 10:45	Working Group Updates <ul style="list-style-type: none">• Real-Time Operations• Cold and Extreme Weather Task Force	Tim Beach, RC West Tricia Johnstone
10:45 – 10:50	Future agenda items	
10:50 – 11:00	Public Comment	
11:00	Public Session Adjourned	

Committee Member Roll Call

Ben Brandt
Committee Chair

Update: RC West Operations

Tim Beach
Director, Reliability Coordination

Kathy Fernandez
Operations Procedure Control Specialist

Rachel Melton
Sr. Operations Compliance Analyst

Operations Update

COVID Protocols

- **Operations team remains separated**
- **CA Indoor masking requirement expired on Feb 15th**
- **ISO control room mask protocol remains in place**
- **April 15th - return to building**

RC Procedures Update

RC Proc. #	Procedure Title	Status	Description of changes
RC9110	NW Washington Area Import IROL	Published 2/17	Section 4.2, Step 5, and sub-bullet 3: replaced “Paul-Allston” with “South of Napavine” since Paul-Allston interface retired. Section 4.2, Step 5, and sub-bullet 5: updated from “per load share” to “per share”. Appendix A: added “Approximate Percentage of Total Generation” table with footnote. Appendix B: added a footnote for Jackson unit to clarify that Jackson is a SNPD owned resource controlled by its balancing authority, BPA. RC should contact BPA for issuing operating instructions.
RC0120B	RC West IRO-010 Data Specification for Adjacent RCs	Published 2/10	Section 2 - added data format and frequency for RC-2.10. Added exceptions to data requests in coordination with SPP RC. Changes coordinated with the RC-RC IRO-010 coordination sub team. Minor format and grammar updates.
RC9130	Path 61/Lugo-Victorville IROL	Published 2/10	Periodic Review: No changes.
RC0410	System Emergencies	Published 2/1	Annual Review: Minor format and grammar updates throughout.
RC0410A	EOP-011 Plan Review Checklist	Published 2/1	Annual Review: Minor format and grammar updates throughout.
RC0410B	Transmission Emergencies Due to Wildfire	Published 2/1	Annual Review: Updated to Annual review to align with main procedure RC0410.
RC0620	Operations Planning Analysis (Next Day)	Published 2/1	Updated Pre-OPA (D+3) study process. Minor format and grammar updates.

RC Procedures Update - continued

RC Proc. #	Procedure Title	Status	Description of changes
RC9120	Oregon Export IROL	Published 2/1	Section 3: Updated always credible multiple contingency list to include John Day-Grizzly #2-500 and Buckley-Grizzly 500 CTG. Section 5: Added Steps 7 and 8 for clarification of GMS notification requirements. Minor formatting throughout for clarity.
RC9210	Path 3 (Northwest – British Columbia) Operating Procedure	Published 2/1	Annual Review: Removed Fortis BC (FBC) from Operationally Affected Parties list and added BCRC. Minor format and grammar updates for consistency.
RC0100A	RC Desk Area of Responsibility	Published 1/06	North/South desk AOR changes: - BAs moved to South desk: BANC/SMUD, NEVP, CAISO and TID. - TOPs moved to South desk: BANC/SMUD, SPPC (NEVP Reno), PGAE, TBC, MID, TIDC, HHWP, SVP, WASN and RDNG.
RC0600	RC West Implementation of Common Interconnection-wide Methodology	Published 12/17 –Effective 1/01/22	Annual Review: Purpose & References sections: Updated NERC standard IRO-002 references. Minor format and grammar updates.
RC0600A	Western Interconnection Modeling and Monitoring Common Methodology	Published 12/17 –Effective 1/01/22	Annual Review: No content changes to this document were requested. Updated NERC Standard IRO-002 reference (Section 1) and other minor format edits.

Upcoming RC Procedures Updates

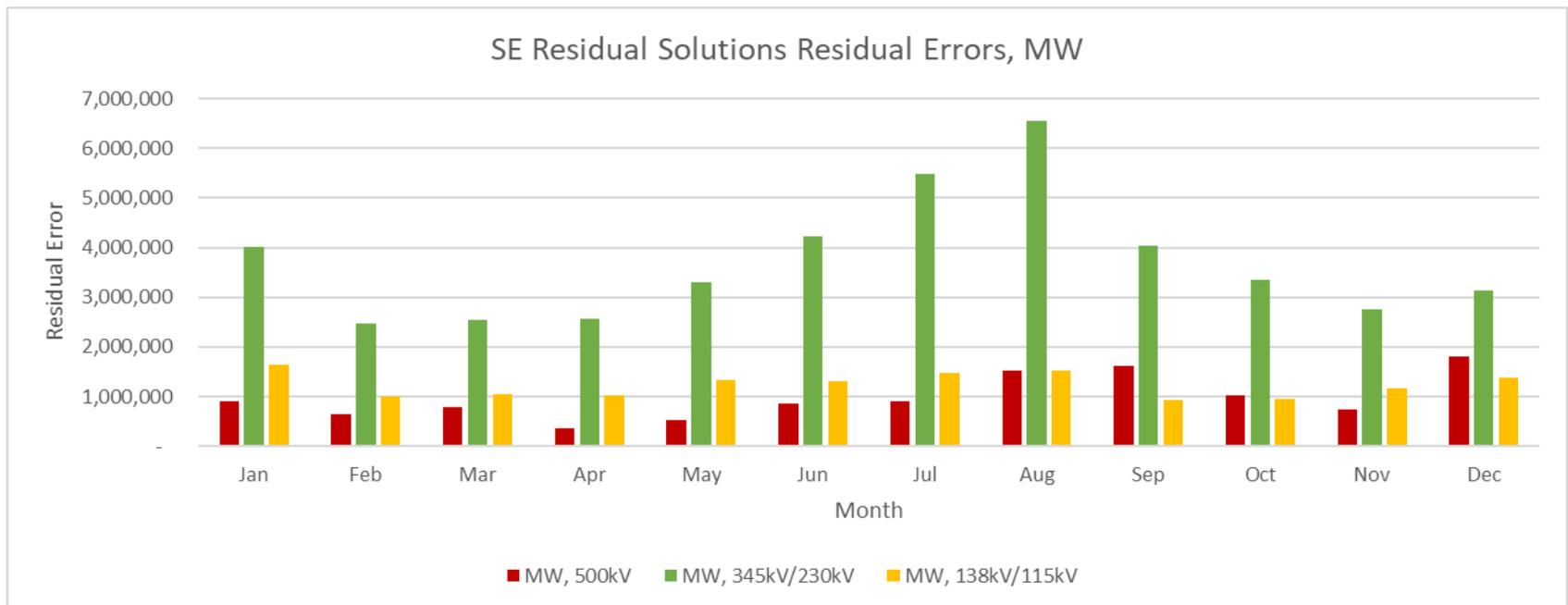
RC Proc. #	Procedure Title	Status	Description of changes
RC0120	Guidelines for RC West IRO-010 Data Specification and Collection	Target Publish is 5/3	Annual Review: Section 3.1.3.4: Clarified forecast for split share units. Section 3.1.5.5: Removed Path 73 with coordination with BPA.
RC0120A	RC West IRO-010 Data Specification	Target Publish is 5/3	Annual Review: TBD
RC0120B		Target Publish is 5/3	Annual Review: EIM Go-Live Changes (TBD)
RC0310	Mitigating SOL and IROL Exceedances	Pending update confirmation and Task Force approval	Added Appendix A and references to it in Sections 3.3, 3.5, 3.6. Section 3.5: Added bullet and sub-bullets for a Voltage Stability exceedance. Updated NERC Standard references and minor format and grammar updates throughout. Added procedure references to RC0310A and RC0310B in References section.
RC0330	Coordination with Neighboring RCs	Pending RC Review To be Effective 4/1	Annual Review: Updated procedure references where appropriate. Minor format and grammar updates.
RC0330A	List of Ties with Neighboring RCs	Pending RC Review To be Effective 4/1	Annual Review: Minor edits to Footnote 9 for RC West procedure reference and affected parties list.
RC0330B	Contingency Monitored for Neighboring RC Area	Pending RC Review To be Effective 4/1	Annual Review: No changes.
RC0330C	SPP-RC West Pseudo-Tie Arrangement for Grady Wind Generation	Pending RC Review To be Effective 4/1	Annual Review: Minor edit under affected parties list.

Upcoming RC Procedures Updates - continued

RC Proc. #	Procedure Title	Status	Description of changes
RC0540	WIT Administration	Internal Coordination	Section 3.1: Minor updates for clarification. Sections 3.3, 3.4 & 3.5: Removed Appendix references (not applicable). Section 3.8: Added reference to the 7th of every month. Updated NERC Requirements and WECC Criterion. Removed reference to RC0540B as it is incorrect.
RC0540B	BA Guide for Annual Frequency Bias and Lmax Changes	Internal Coordination	Updated procedure title for RC West and updated "Effective" date. Minor format and grammar edits for consistency.
RC0610	System Operating Limits Methodology For the Operations Horizon	Internal Coordination	Periodic Review: TBD
RC9000	Open Loop Guideline	Internal Coordination	Clarified instances of "TOT 2" with WECC Path numbers. Clarified PDCI operation and NE/SE Separation in Section 3.3.3.2.
<u>RC9540</u>	Monitoring IID System	Internal Coordination	Added Appendix C for ambient temperature ratings for S-Line. Added notes in sections 4.2.5, 4.2.6 and Table 3 where ambient temperature ratings for S-Line would be used.
<u>RC9550</u>	Monitoring Heavy E-W Flows on SWPL. HANG2, SPRPL, and Parallel Transmission	Update pending	TBD -

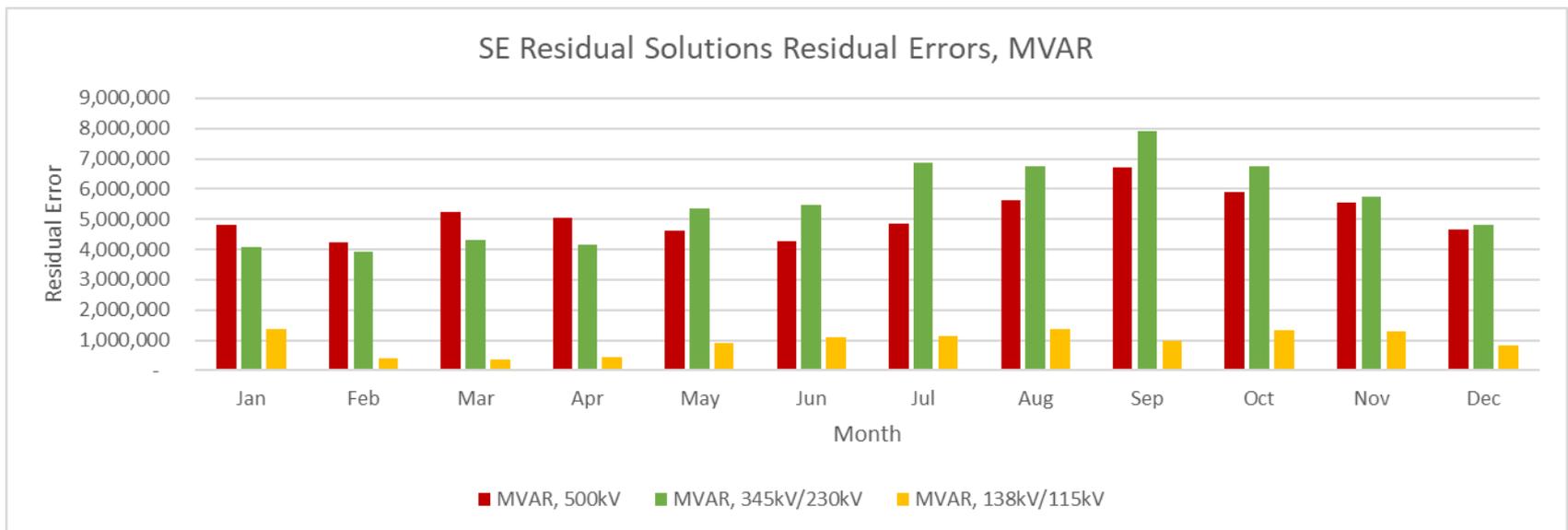
RC Metrics Year End 2021 - State Estimator Solutions Residual Errors

- SE Residual Error – sum of MW flow on 500kV, 345kV, 230kV, 138kV, and 115kV lines
- *Note: Residual flow is the difference between the calculated SE solution flow on each line compared to the actual telemetry value. This is a reflection of SE accuracy in RC West area.*



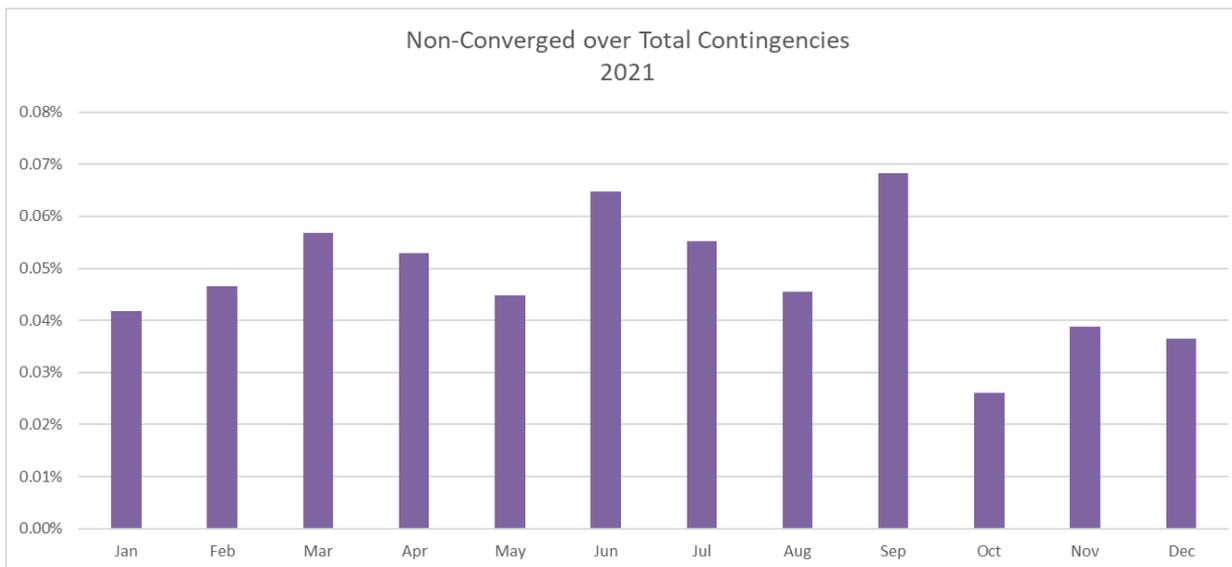
RC Metrics Year End 2021 - State Estimator Solutions Residual Errors

- SE Residual Error – sum of MVAR values on 500kV, 345kV, 230kV, 138kV, and 115kV lines
- *Note: Residual flow is the difference between the calculated SE solution flow on each line compared to the actual telemetry value. This is a reflection of SE accuracy in RC West area.*



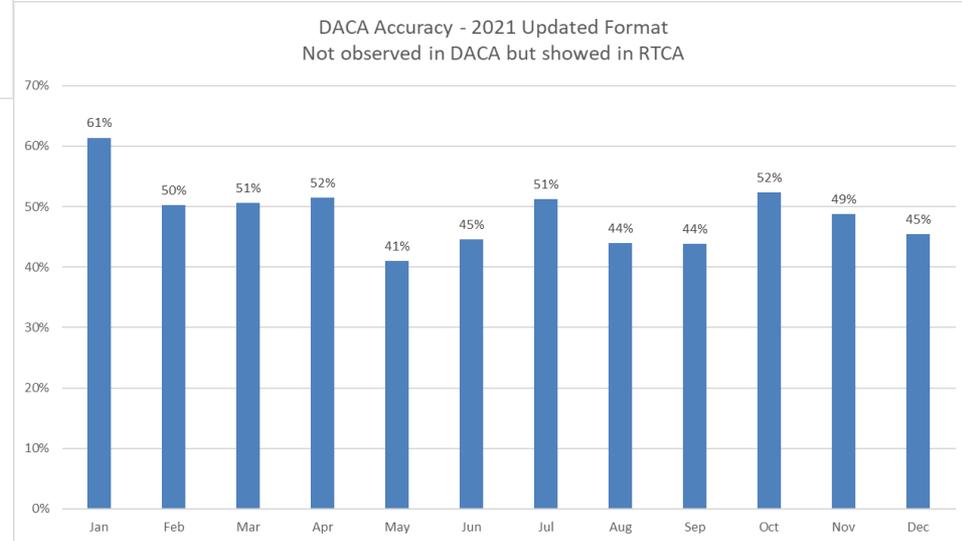
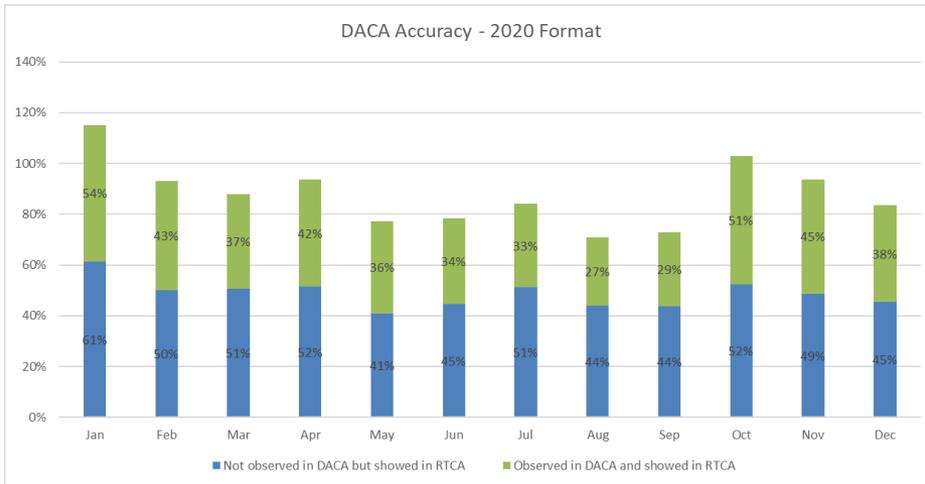
RC Metrics Year End 2021 - RTCA Non-Converted Contingencies

- Percentage of Real-Time Contingency Analysis (RTCA) non-converted contingencies over the total number of contingencies in five-minute intervals
- *Note: Over 8,500 contingencies are solved in every RTCA solution*



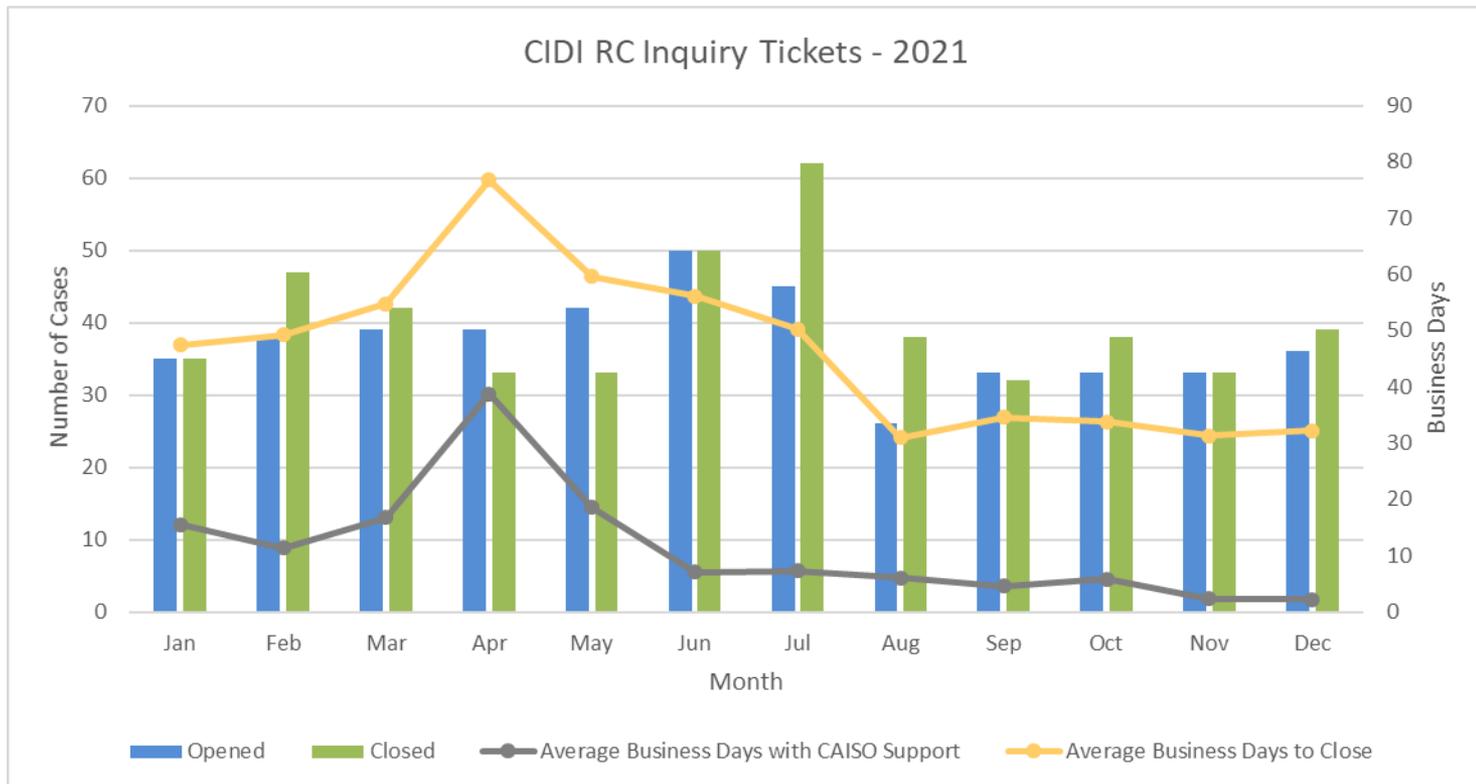
RC Metrics Year End 2021 - DACA Accuracy

Day Ahead Contingency Analysis (DACA) tool is designed to identify potential contingencies in the day ahead timeframe



RC Metrics Year End 2021 - CIDI/Issue Resolution Progress

- Count of Customer Inquiry and Dispute Information (CIDI) tickets of the RC Inquiry case record type
- The number of opened cases will not change each time the data is pulled, but the other numbers can change as there are still cases opened from a prior month that haven't been closed.



Working Group Updates

Real-Time Operations Working Group

Tim Beach
Director, Reliability Coordinator

RTWG Update

- **Formed Joint RTWG/OPWG Task force**
- **Wildfire Coordination**
- **RC West Summer Readiness Webinar**

RTWG Update – Joint Voltage Violation Task Force (JVSOLTF)

Members comprised of RTWG and OPWG representatives

Objective: Improve situation awareness of Voltage SOLs

Scope:

- **Review Voltage SOL methodology in the RC West SOL Methodology**
- **Make necessary improvements and revisions to align operating practices and RC West SOL methodology**
- **Develop implementation plan**
- **Submit revisions and implementation plan to full RTWG and OPWG for approval**
- **Address any possible changes in the RC West Data Specification**
- **Complete Implementation and disband Task Force by TBD.**

RTWGG Update – Wildfire Coordination continued

WECC: Forming RC to RC Wildfire Coordination advisory board

Purpose: Create a reference document of best practices that provide reference and best practices to the RCs to identify, monitor, and report on the impacts of wildfires.

Draft Scope:

- Create a team consisting of representatives from WECC RCs
 - **Identify how the RCs currently identify and monitor wildfires**
 - **Identify how the RCs study the impacts of wildfires**
 - **Determine what information or impacts should be shared with others and the process of notification.**
 - Develop reference document

Pyregence Research is developing next-generation models to provide more accurate wildfire forecasts for the next week—and the rest of the century

[Pyregence » Open Source Fire Science](#)

RTWG Update – Wildfire Coordination

July of 2021 RTWG approved Transmission Emergencies due to Wildfire (RC041B)

Purpose:

Provide guidance to RC Operators and TOPs on notification and coordination during wildfire Transmission Emergencies.

Highlights :

- **RC and TOP coordinate when a wildfire is detected**
- **Determine threatened facilities**
- **Determine if RAS will be triggered for lost facilities**
- **Determine if steps are needed to prevent RAS operations or reduce its impact.**
 - **E,g High RAS Gen Drop**
- **Notify impacted entities of potential RAS action via GMS**

RTWG Update – Summer Readiness Webinar

Date: May 19th 10:00-12:00

Content

- ***Weather - Amber or delegate will prepare.***
- ***Wildfire –***
 - ✓ ***Outlook***
 - ✓ ***WECC threat monitor***
- ***Open Loop Event Recommendations,***
- ***Seasonal assessment (coming summer 2023)***
- ***Review of IROL and Stability Limits***
- ***Review Emergency Procedures (EEA steps)***
- ***New Operating Guides (seams)***
- ***WECC Resource assessment (WECC)***
- ***Frequency Response monitoring and Mitigation***

Cold and Extreme Weather Task Force

Tricia Johnstone
Director, Operational Readiness

Scope of work for RC West Task Force

- Representation: Avista (GOP), APS, Avangrid, BPA, CAISO, Chelan, Hetch Hetchy, IID, Lone Star, Northwestern, Portland (BA/TOP and GOP), Redding, SRP, SCE, WECC
- Objectives
 - Develop RC West approach for Cold Weather Standard changes which will be effective 4/1/23
 - Validate BA and TOP plans for implementation to ensure consistency with and reasonableness of RC approach
- Proposal
 - Simple approach to gather data which will aid forecasting activities in the Operations Planning Analysis timeframe

Questions – borrowed from ERCOT Report Form

[https://www.ercot.com/files/docs/2021/11/09/DRAFT Generation Winter Weather Readiness Report Form.pdf](https://www.ercot.com/files/docs/2021/11/09/DRAFT_Generation_Winter_Weather_Readiness_Report_Form.pdf)

- Has the Resource Owner determined any of the following?
 - Resource’s minimum design temperature? (Y/N) – *if Y, degrees F*
 - Resource’s minimum experienced operating temperature? (Y/N) – *if Y, degrees F*
 - Has the Resource Entity determined other operating limitations based on:
 - Precipitation? (Y/N) – *if Y, describe*
 - Humidity? (Y/N) – *if Y, describe*
 - Wind speed? (Y/N) – *if Y, describe*
 - Wind direction? (Y/N) – *if Y, describe*
 - Is the Resource Entity aware of any other winter weather operating limitations that it would like to share? (Y/N) – *if Y, describe*

- Should the RC also consider collecting data regarding limitations due to extreme heat? (Y/N) – *if Y, describe*

Task Force Timeline

- Presented to GOWG 2/9
- Discussed at WICF Generator forum 2/15
- By March 1 - Send survey to BAs, TOPs, GOPs
- March - May – provide updates at RC West Working Groups – Data Exchange, Operations Planning and Real Time
- Hand off planned to OPWG and DEWG
 - Generator attributes and outage submission requirements
 - Draft updates for data collection – IRO-010 data request and specifications

- Requesting - any further guidance from RCWOC?

Future Agenda Items

- The next RC West Oversight Committee meeting is scheduled on May 25, 2022; visit [RC West webpage](#) for additional details
- Send topic suggestions to rc-westoc@caiso.com.

Open for Public Comments

Public Session Adjourned