



California ISO | RC West

RC West Oversight Committee

Public Session

May 24, 2022

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	Brenda Corona
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 <ul style="list-style-type: none"> • COVID-19 update • RC West Summer Readiness highlights • Procedures update • RC Metrics Q1 2022 update 	Tim Beach, RC West Kathy Fernandez, CAISO Ankit Mishra, CAISO Aung Oo, CAISO Tricia Johnstone, CAISO
10:10 – 10:15	CIP-014 NERC Reliability Standard Risk Assessment Agreement	Debi LeVine, CAISO
10:15 – 10:45	Working Group Updates <ul style="list-style-type: none"> • DEWG • OPWG: Frequency Response Monitor & Mitigation task force update • OPWG/RTWG: <ul style="list-style-type: none"> • PI Vision • Voltage SOL task force update 	Rachel Melton, CAISO Aftab Alam, CAISO Tim Beach, RC West
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

Ankit Mishra
Manager, Market Engineering and Network Application Support

Aung Oo
Manager, Reliability and Market Operations Engineering

Operations Update

COVID –

- **Return to Office options**
 - ✓ **On campus**
 - ✓ **Hybrid (1 or more days on campus per week)**
 - ✓ **Full Remote**
 - ✓ **Flexible Hours**
- **3rd Control Room – moving to permanent set up**

RC West Summer Readiness Webinar highlights -

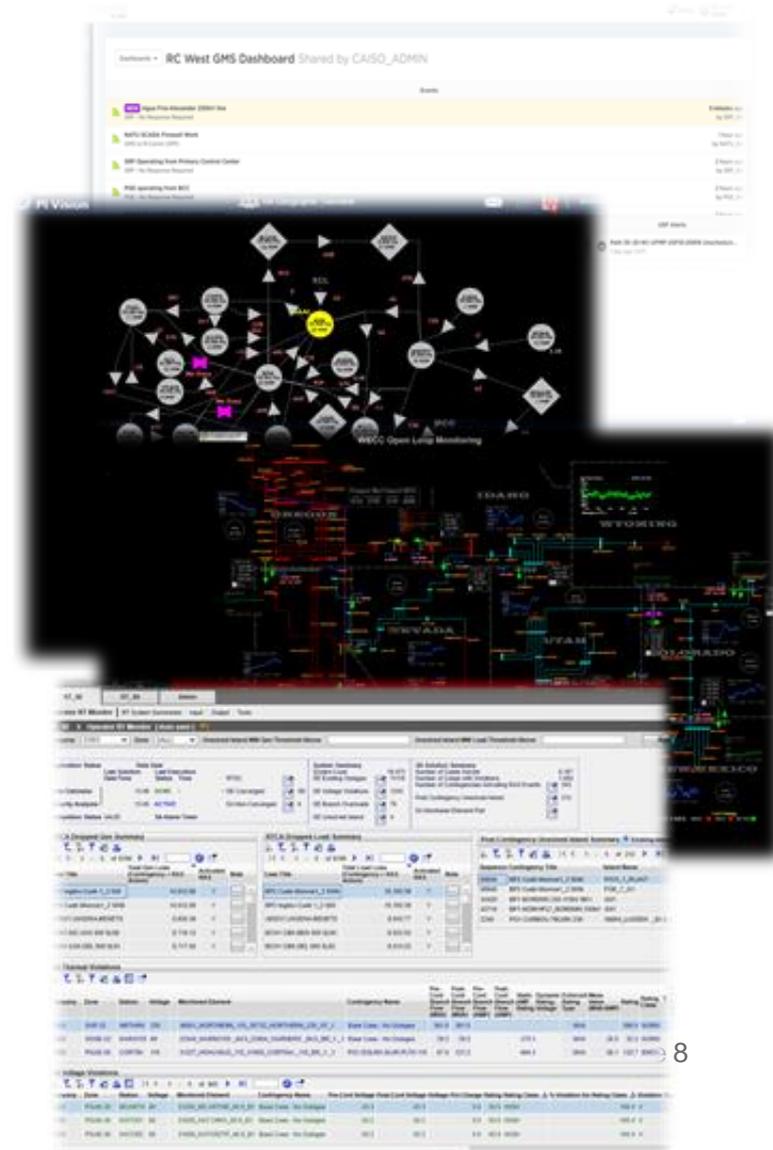
- **Weather and Fire Outlook**
 - ✓ ***Strongest heat in August and September***
 - ✓ ***Above normal overnight temps all summer***
 - ✓ ***Above average monsoon rainfall***
 - ✓ ***Early start to fire season and numerous high fire risk events throughout summer***
 - ✓ ***Above normal fire potential for most of Western US***
- **Reviewed WEIM Recommendations**
 - ✓ **Mechanism for Security Constrained Unit Commitment**
 - ✓ **WEIM Job Aids available on WEIM Portal**
- **Reviewed RC West Wildfire Procedure and WECC Threat Monitor**
- **Reviewed IROL (3), Stability Limits and Emergency Procedures, including use of EEA Watch**
- **Discussed 2023 Summer Readiness – 4 region summer assessment study plans**

RC Situational Awareness Tools

- Reviewed during RTWG, TWG and Summer Outlook meetings
- Ensure BA and TOP operators have access to and are prepared to use:
 - PI Vision
 - GMS
 - HANA
- RC Portal > Training
 - Reference documents
 - Videos
 - CBTs
- If additional training/ support is needed, email training@caiso.com or submit a CIDI ticket
- If other feedback re: application functions/ content, submit a CIDI ticket

Situational Awareness Tools

- **Grid Messaging System (GMS)** provides messaging platform across BAs, TOPs and RCs
- **PI Vision** provides visualization for real time situational awareness for system conditions in the Western Interconnection
- **Hosted Advanced Network Applications (HANA)** provides platform for “what if” contingency analysis for situational awareness



RC Procedures Update

RC Proc. #	Procedure Title	Status	Description of changes
RC9000	Open Loop Guideline	Published 5/17	Major Update: Clarified instances of “TOT 2” with WECC Path numbers. Clarified PDCI operation and NE/SE Separation in Section 3.3.2.2. Added Section 3.2.1 for list of Always Credible Multiple Contingencies. Added step to Section 3.3.3 to consider suspending Western EIM when WECC is islanded.
RC0310	Mitigating SOL and IROL Exceedances	Published 5/13 - Effective 5/15	Periodic Review: 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. Added procedure references to RC0310A and RC0310B in References section. Updated NERC Standard references and minor format and grammar updates throughout.
RC0310A	Mitigating SOL and IROL Exceedances	Published 5/13 - Effective 5/15	Periodic Review: Spelled out SOLs in Purpose section and minor format changes.
RC0310C	Guidelines for Declaring Insecure Operating State	Published 5/13 - Effective 5/15	Periodic Review: Updated first paragraph to include “affecting multiple BES stations”, minor format and grammar updates.
RC0120A	RC West IRO-010 Data Specification	Published 5/3	Annual Review: Added exceptions to data requests.
RC0120B	RC West IRO-010 Data Specification for Adjacent RCs	Published 5/3	Annual Review: Added exceptions to data requests in coordination with TEPC. Clarified language in data request 6.24.
RC0120C	ICCP or PMU Data Request Procedure	Published 5/3	Annual Review: References: Updated NERC Standard and removed reference to CAISO IRO-010 RC Data Specifications since detail now in CAISO Operating Procedure 3140A also referenced. Definitions Section: Updated from ISO to CAISO.
RC0120	Guidelines for RC West IRO-010 Data Specification and Collection	Published 4/19	Annual Review: Section 3.1 - added supporting language for implementation of NERC Standard CIP-012. Section 3.1.2: Added purpose language. Section 3.1.3.4: Clarified forecast for split share units. Section 3.1.5.5: Removed Path 73 with coordination with BPA. Reviewed changes with Data Exchange Working Group on 3/9/2022.

RC Procedures Update - continued

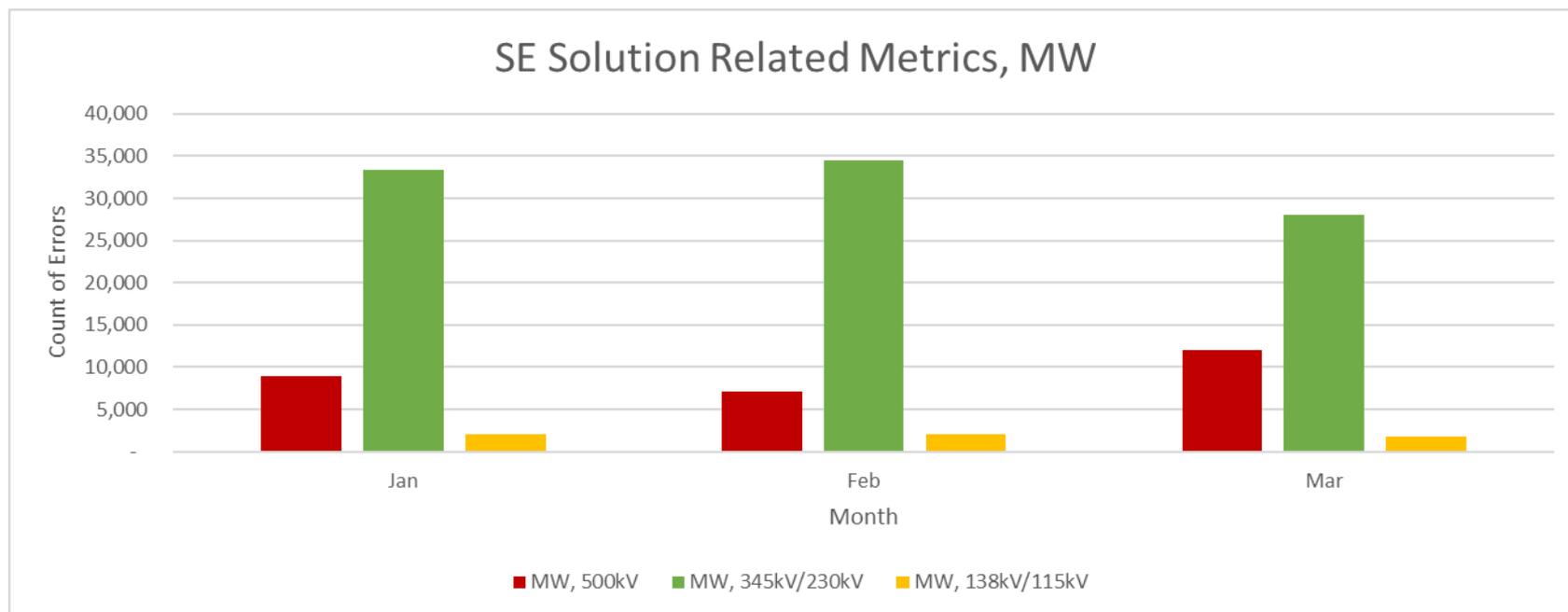
RC Proc. #	Procedure Title	Status	Description of changes
RC0330	Guidelines for Declaring Insecure Operating State	Published - Effective 4/1	Annual Review: Updated procedure references where appropriate. Minor format and grammar updates.
RC0330A	Guidelines for Declaring Insecure Operating State	Published - Effective 4/1	Annual Review: Table 2: Updated to reflect FortisBC involved with Boundary-Waneta230kV line. Minor edits to Footnote 9 for RC West procedure reference and affected parties list.
RC0330B	Contingency Monitored for Neighboring RC Area	Published - Effective 4/1	Annual Review: No changes.
RC0330C	SPP-RC West Pseudo-Tie Arrangement for Grady Wind Generation	Published - Effective 4/1	Annual Review: Minor edit under affected parties list.
RC0520	Loss of Monitoring and Analysis Tools	Published 3/24	Periodic Review: Sections 3.1, 3.4, 3.5 and 3.6: Added step for RC Operator to review offline study results with RCOE. Updated NERC Standards and WECC Criterion where applicable. Minor format and grammar edits.
RC0540	WIT Administration	Published 3/24	Periodic Review: Section 3.1: Minor updates to BA Actions 1 and 2 for clarification. Section 3.8: Added reference to the 7th of every month. Removed Appendix references throughout that are not applicable. Updated NERC Requirements and WECC Criterion. Updated Appendix section to include Procedure Attachment RC0540A and Appendix A diagram. Minor formatting and grammar updates.
RC0540A	RC West WIT Schedule Change Process	Published 3/24	Periodic Review: Updated procedure title for RC West and updated "Effective" date. Updated Inquiry Ticket type to Reliability Coordinator Inquiry and removed name specific detail to make the distribution more generic. Removed Appendix A diagram and included in main procedure RC0540. Minor format and grammar edits for consistency.
RC0550	Reliability Coordinator Procedure Development, Maintenance and Distribution	Published 3/24	Periodic Review: Minor format and grammar updates.

Upcoming RC Procedures Updates

RC Proc. #	Procedure Title	Status	Description of changes
RC0460	Reliability Coordinator Area Restoration Plan	Target Effective Date 6/1/22	Annual Review: Minor format and grammar updates for procedure consistency and updated procedure titles in Appendix section.
RC0460A	Restoration Principles	Target Effective Date 6/1/22	Annual Review: No changes.
RC0460B	Whole or Partial Transmission System Islanding Restoration Checklist	Target Effective Date 6/1/22	Annual Review: Included link with procedure references; no content changes.
RC0460C	Blackout Restoration Using Connection to Energized System Checklist	Target Effective Date 6/1/22	Annual Review: Included link with procedure references; no content changes.
RC0460D	Blackout Restoration Energizing a De-energized System Checklist	Target Effective Date 6/1/22	Annual Review: Minor format and punctuation edits.
RC0460E	Synchronization Checklist	Target Effective Date 6/1/22	Annual Review: No changes.
RC0460F	EOP-005 Plan Review Checklist	Target Effective Date 6/1/22	Annual Review: Minor format and grammar edits.
RC0610	System Operating Limits Methodology For the Operations Horizon	Internal Coordination	Periodic Review: TBD
RC9130	Path 61/Lugo-Victorville IROL	Target Effective Date 6/1/22	Section 2.2: Added bullet point "Lugo-Mohave 500 kV Path".
RC9510	Operating Plan for IPP DC Bi-pole Contingency	Target Effective Date 6/1/22	Periodic Review: Minor format and grammar updates. Appendix B: Updated LDWP contact information.
RC9540	Monitoring IID System	Internal Coordination & Pending IID/CAISO System Resolution	Periodic review: Added notes in Sections 4.2.5, 4.2.6 and Table 3 where ambient temperature ratings for S-Line would be used. Added Appendix C for ambient temperature ratings for S-Line.
RC9550	Monitoring Heavy E-W Flows on SWPL. HANG2, SPRPL, and Parallel Transmission	Internal Coordination & Pending IID/CAISO System Resolution	Periodic Review: Added Appendix A note where ambient temperature ratings for S-Line would be used. Appendix B: Minor edits to Note. Added Appendix E, Ambient Temperature Rating Table for IID Lines.

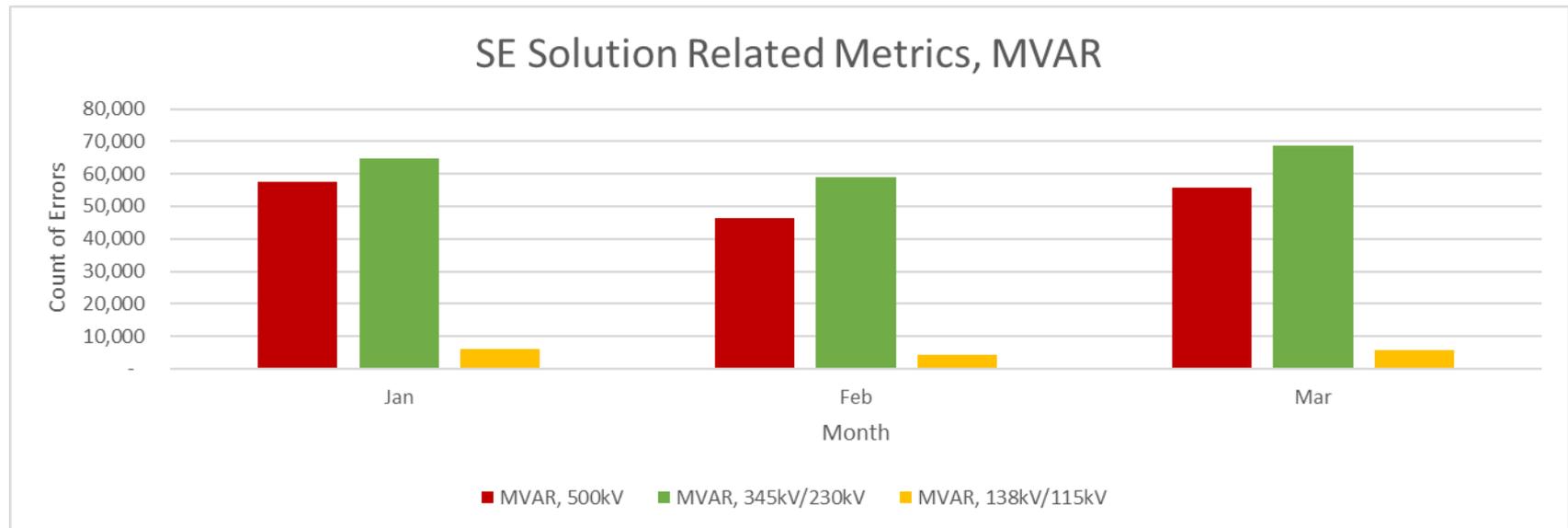
RC Metrics Q1 2022 - SE Solution related metrics (MW)

- Count of MW anomalies observed on 500kV, 345kV, 230kV, 138kV, and 115kV lines
- *Note: Though the measurement is not used by SE in estimating the solution, the residue is computed and contributes to the metric.*



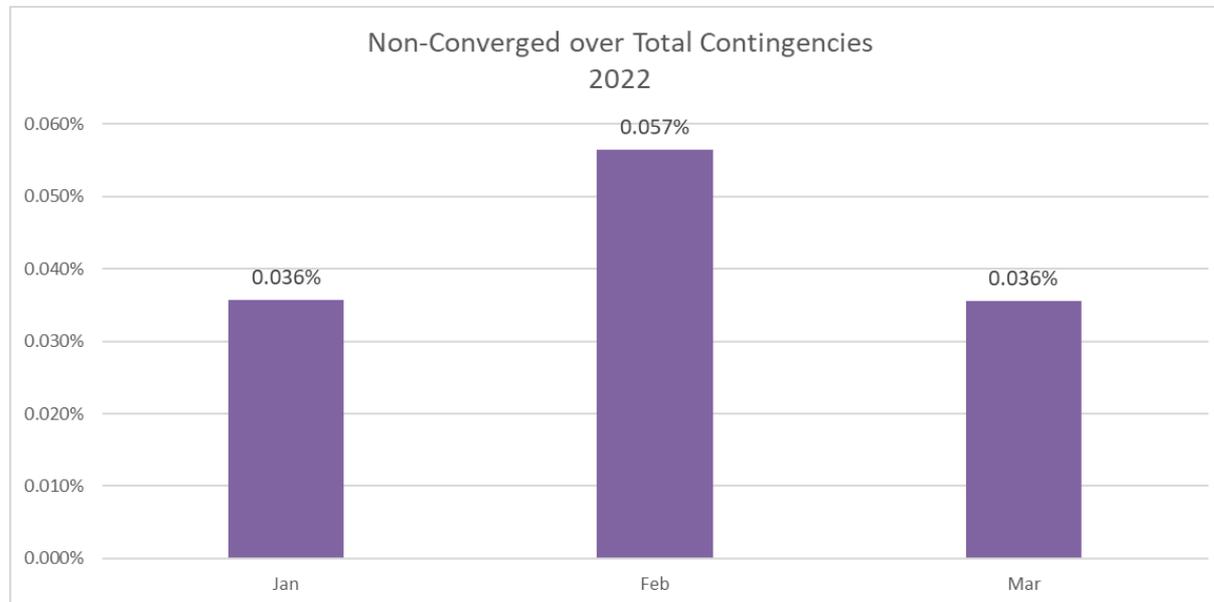
RC Metrics Q1 2022 - SE Solution related metrics (MVAR)

- Count of MVAR anomalies observed on 500kV, 345kV, 230kV, 138kV, and 115kV lines
- *Note: Though the measurement is not used by SE in estimating the solution, the residue is computed and contributes to the metric.*



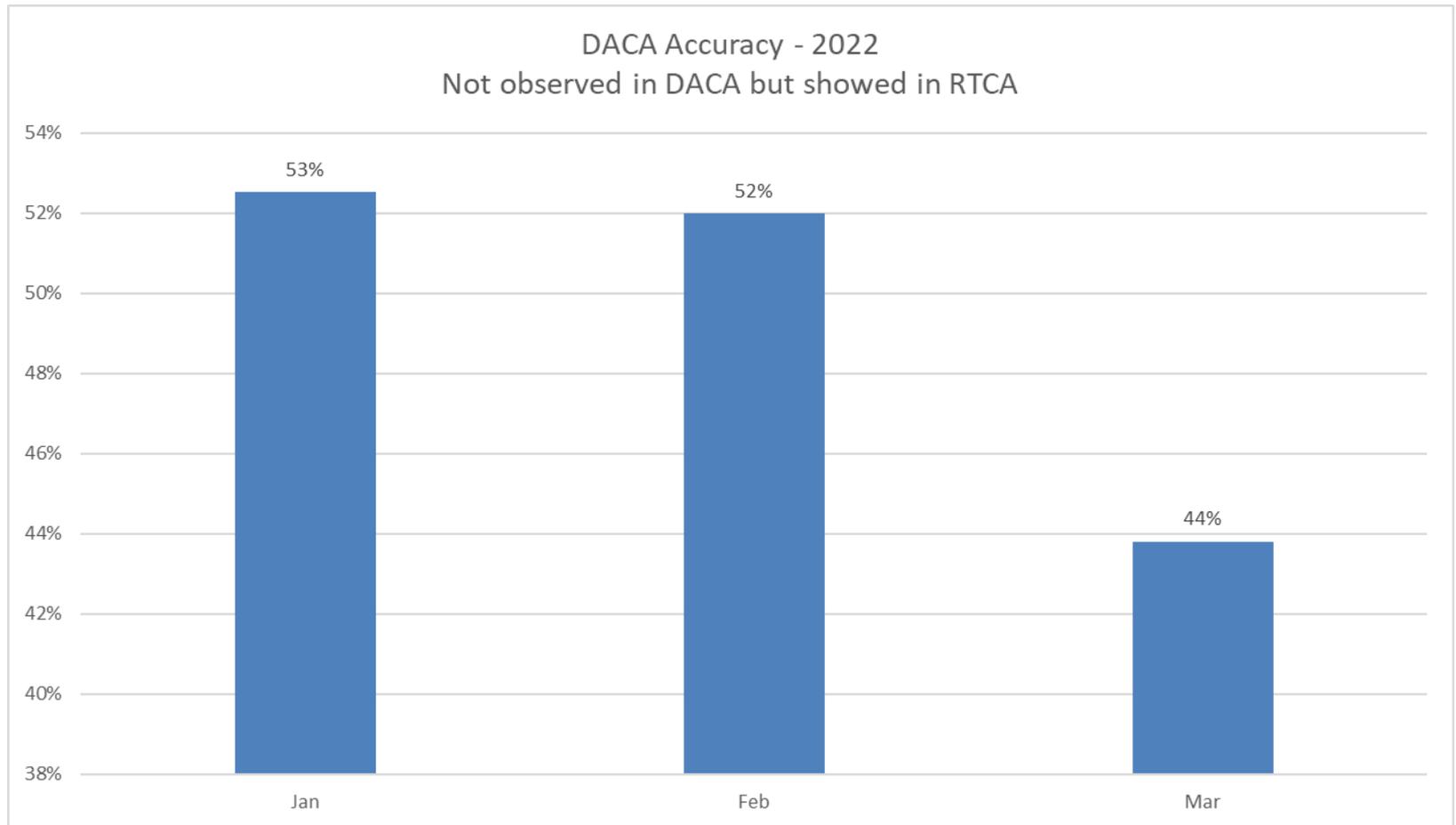
RC Metrics Q1 2022 - RTCA Non-Converged Contingencies

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



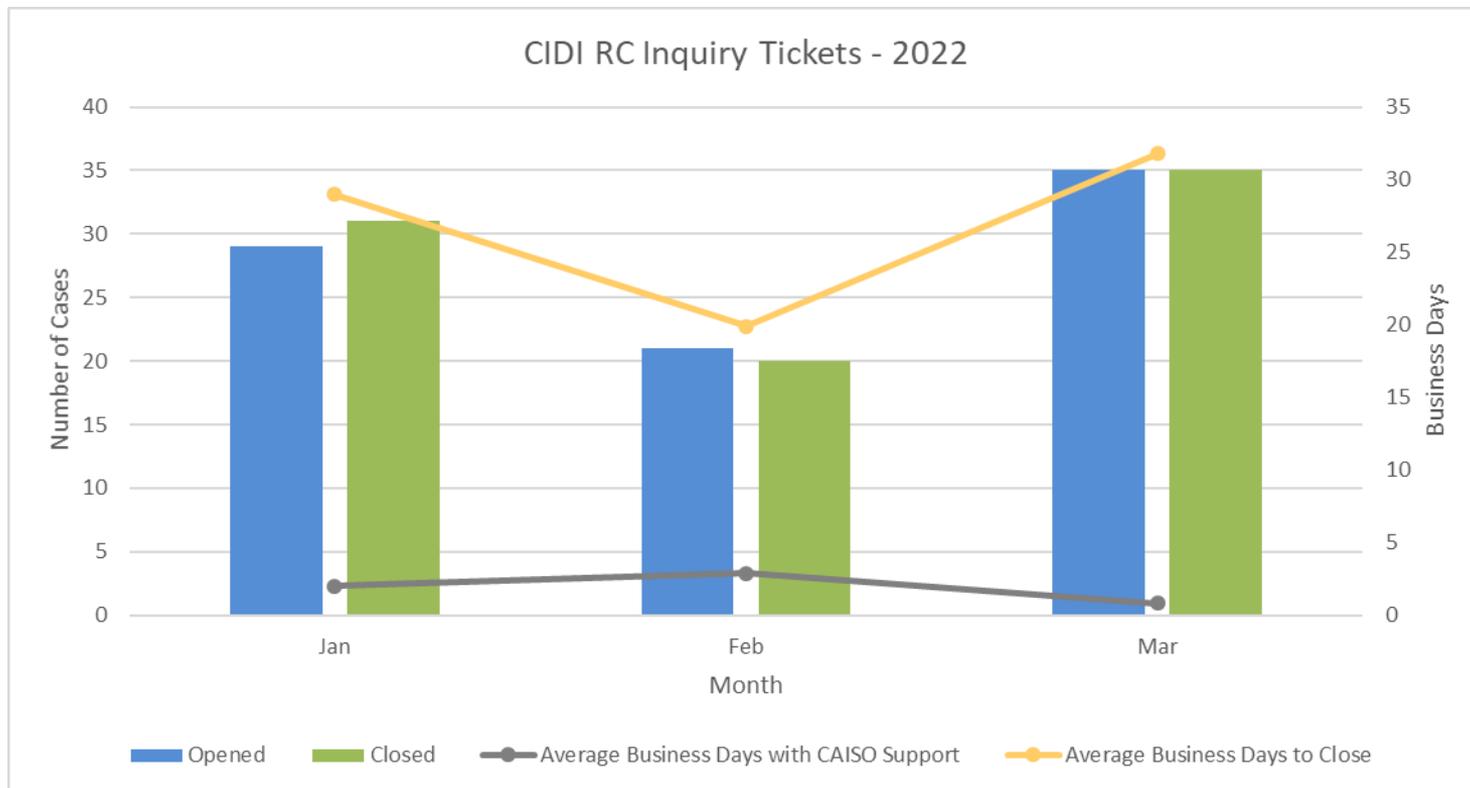
RC Metrics Year End 2022 - DACA Accuracy

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.



CIP-014 Agreement

Debi LeVine
Director, Infrastructure Contracts and Management

Working Group Updates

Data Exchange Working Group

Rachel Melton
Sr Operations Compliance Analyst

Data Exchange Working Group

- Guidelines for IRO-010 Data Specification (RC0120) – published 4/18/2022
 - Added supporting language for implementation of NERC Standard CIP-012
 - Clarifications for real-time balancing authority data and generation forecast data
- Modeling Templates – published 3/23/2022
 - Contingency Definition Template (Instructions on naming conventions clarified)
 - Modeling User Guide (Added clarifications/cleanup based on previous feedback)

Data Exchange Working Group

- Dynamic Ratings – Ambient Adjusted Ratings (AAR) under FERC Order 881
 - CAISO/RC West has created an internal team to understand the impacts of this order on both our reliability processes and market processes.
 - We have also met with other ISO's/RTO's in eastern/western interconnections to understand their respective thoughts on this issue. Our expectations are to make sure we align our fillings with our TOP's fillings.
- Cold and Extreme Weather Task Force
 - Team has been meeting to develop an approach for the upcoming NERC cold weather standards changes 4/1/23.
 - Simple approach to gather data which will aid forecasting activities in the Operations Planning Analysis timeframe. Likely to impact data specifications, outage coordination procedures, and new templates for collecting resource data.

Joint Operations Planning - Real Time Frequency Response Monitor & Mitigation Task Force

Aftab Alam
Manager, Operations Engineering Planning, North

Real-Time Operations Working Group

Tim Beach
Director, Reliability Coordinator

RTWG Update – Joint Voltage Violation Task Force (JVSOLTF)

- Clarify requirements for System Voltage Limits. Key items:
 - Encouragement for TOPs to utilize various resources in developing SVLs including manufacturer ratings, industry standards (e.g. IEEE, CIGRE or other), and data based on testing, performance history or engineering analysis.
 - Internal risk assessment of factors the TOP deems relevant, including use of time-dependent equipment ratings.
- Normal SVLs
 - Although Normal SVLs considered continuous by default, allow TOPs submit additional Normal SVLs with time duration(s). RC West will monitor these as continuous.
 - If a TOP provides RC West with multiple Normal SVLs, RC West will select the least restrictive limits for pre-Contingency operations.

RTWG Update – Joint Voltage Violation Task Force (JVSOLTF)

- Emergency SVLs
 - If a TOP provides RC West with multiple Emergency SVLs, RC West will select the least restrictive limits for Post-Contingency operations.
- TBD
 - Review exclusion requirements for line side series capacitor limits.
 - Review Process for TOP submission (templates) of buses to be monitored vs excluded

Future Agenda Items

- The next RC West Oversight Committee meeting is scheduled on August 24, 2022; visit [RC West webpage](#) for additional details
- Send topic suggestions to rc-westoc@caiso.com.

Open for Public Comments

Public Session Adjourned