



California ISO



RC West

# RC West Oversight Committee

Public Session

Aug 24, 2022

1:00 – 2:30 p.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](http://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:
1:00 – 1:05	Welcome/agenda	Brenda Corona, CAISO
1:15 - 1:20	Roll call	Ben Brandt - Chair
1:20 – 1:30	<b>Oversight Committee Business</b> <ul style="list-style-type: none"> <li>Charter review</li> <li>Nominations for Chair and Vice Chair</li> </ul>	Ben Brandt, Chris Hofmann
1:30 – 2:00	<b>RC West Operations Update</b> <ul style="list-style-type: none"> <li>General operations</li> <li>Procedures update</li> <li>RC metrics update</li> </ul>	Tim Beach, RC West Kathy Fernandez, CAISO Veera Vinnakota, Aung OO, CAISO
2:00 – 2:20	<b>Working Group Updates</b> <ul style="list-style-type: none"> <li>Real-Time Operations</li> <li>Data Exchange</li> <li>Joint RTWG/OPWG               <ul style="list-style-type: none"> <li>Frequency Response Mitigation Task Force</li> <li>RC Procedure RC RC0630A OMS User Guide</li> <li>Voltage SOL Taskforce Update</li> </ul> </li> </ul>	Tim Beach, RC West Rachel Melton, CAISO Raja Thappetaobula, CAISO Licheng Jin, CAISO Samsun Adigun, CAISO
2:20 –2:25	<b>Future agenda items</b>	
2:25 – 2:30	<b>Public Comment</b>	
2:30	<b>Public Session Adjourned</b>	

# Committee Member Roll Call

Ben Brandt  
Committee Chair

# Charter Review and Nominations

Ben Brandt  
Committee Chair

# Operations Update

## Peak Load

- **YTD 122.05 GW, 8/17/2022 HE18 (Historical Peak 127.6 GW, 8/20/2020 HE18)**
  - **Two BA's in Restricted Maintenance Operations (RMO)**
  - **No Energy Emergency Alerts (EEA)**

## Wildfires

- **Normal Wildfire activity**
- **No impacts to BES system operations**

## Geomagnetic Disturbance – Level G3 (GMD)

- **August 17-20<sup>th</sup> No impacts reported**

## Energy Emergency Alerts (EEA)

- **EEA 2 (6/5)**
  - **AVRN, lost resources, required EEA 2 to access additional Reserve Sharing Group energy**
- **EEA-1 (6/17)**
  - **AVRN was fully resourced, and was concerned with Contingency Reserve sufficiency across peak, BA proactively requested an EEA**
- **EEA-3 (6/5)**
  - **CENACE lost 600 MW of generation.**

# RC Procedures Update

## Recently Published

RC Proc. #	Procedure Title	Status	Description of changes
RC0470	Loss of Control Center Functionality	Published 8/11	Annual Review: Section 3.1.1: Updated PI information for clarity. Updated procedure references, replaced one remaining instance of ISO to CAISO and replaced one instance of CAISO to RC West.
RC0470B	Evacuation and Loss of Control Center Functionality Checklists	Published 8/11	Annual Review: Minor edit to Operationally Affected Parties.
RC0130A	SOL Exceedance Reporting Guideline	Published 8/04	Updated Category 1 and 2 definition for RTCA post-contingency exceedances to align with definition for "Insecure Operating State" in Section 3.6 and 3.9 of RC0310 procedure. Changes approved by RTWG on 7/14/22.
RC0320	Outage Review and Coordination	Published 8/04	Periodic Review: Section 3.1: Updated to better describe review process. Reference Section: Updated NERC Requirement IRO-002 reference. Minor format and grammar edits.
RC9330	NWMT Path 80 Operating Guide	Published 7/29	Initial procedure developed in coordination with SPP West RC, NWMT, PACE and WACM.
RC9310	Northern Nevada (NNEV) N-1-1 Mitigation Procedure	Published 7/28	A new substation was added between Humboldt - Midpoint 345 kV line. The Roger Switching Substation (RGSS). The procedure has been update to add this substation to the procedure to accurately reflect what is seen in real time.
RC0670	NERC PRC-002-2 Disturbance Monitoring and Reporting Requirements Process	Published 7/27	Operationally Affected Parties: Updated due to previous removal of TO/GO contacts from Appendix I of procedure RC0670A and no longer applicable and added TANC.
RC0670A	PRC-002-2 RC West DRR List	Published 7/27	Operationally Affected Parties: Updated since TO/GO contacts were previously removed from Appendix I and no longer applicable. Appendix I, DDR List: Updated based on SCE feedback to use Oromond to Moorpark 230 kV lines telemetry to represent unit DDR.
RC9520	Monitoring of LDWP N-1-1 Potential Cascading	Published 7/21	Periodic Review: Minor Table labeling, formatting and punctuation edits.

# RC Procedures Update - continued

## Recently Published - continued

RC Proc. #	Procedure Title	Status	Description of changes
RC9530	Monitoring South of San Onofre	Published 7/21	Periodic Review: Removed references of RC9140 & RC9150 (Retired 6/01/20). Minor formatting and punctuation edits.
RC0640	Transmission Near-Term Planning Assessments: NERC IRO-017-1, R3 and R4	Published 7/15	Periodic Review: Updated remaining references of CAISO RC to RC West. Section 3 & 4: Updated RC West RC Portal library information. References: Added NERC IRO-017 & TPL-001 references.
RC0660	Transmission Relay Loadability: NERC PRC-023-4	Published 7/15	Periodic Review: References: Added NERC PRC-023 reference.
RC0670	NERC PRC-002-2 Disturbance Monitoring and Reporting Requirements Process	Published 7/15	Periodic Review: Updated Operationally Affected Parties based on PRC-002-2 R5.3. Updated remaining instance if ISO RC to RC West and ISO to CAISO.
RC0670A	PRC-002-2 RC West DRR List	Published 7/15	Periodic Review: Minor edits to Operationally Affected Parties section and included "R5" with NERC PRC-002 reference.
RC9120	Oregon Export IROL	Published 7/15	Clarified language in Section 4.2 and 4.3, Step 11 and added footnote #1.
RC0630A	OATI webSmartOMS User Manual	Published 7/12	Updated due to webSmartOMS release on 6/13/22, including procedure title, snapshots and all references of webOMS to webSmartOMS. Minor formatting and grammar edits.
RC0210	Monitoring Frequency and Balancing Authority Performance	Published 7/05	Periodic Review: Section 3.4: Removed line stating, "Each BA and each RSG shall maintain at least half of it minimum..." (Also removing related footnote 5). Section 3.4.1: Corrected typo under bullet 2, sub bullet 3. References: Updated NERC Requirements.
RC0210A	Reserve Sharing Group Information	Published 7/05	Periodic Review: Minor edit to Operationally Affected Parties.
RC0430A	EOP-010 Plan Review Checklist	Published 7/05	Periodic Review: Minor edit to Operationally Affected Parties and minor formatting edits.
RC0560	Limiting Access to BES Cyber Assets	Published 7/05	Periodic Review: No changes.
RC9120	Oregon Export IROL	Published 7/05	Periodic Review: Updating Section 4.2 and 4.3 to improve the Oregon Export flows management process.



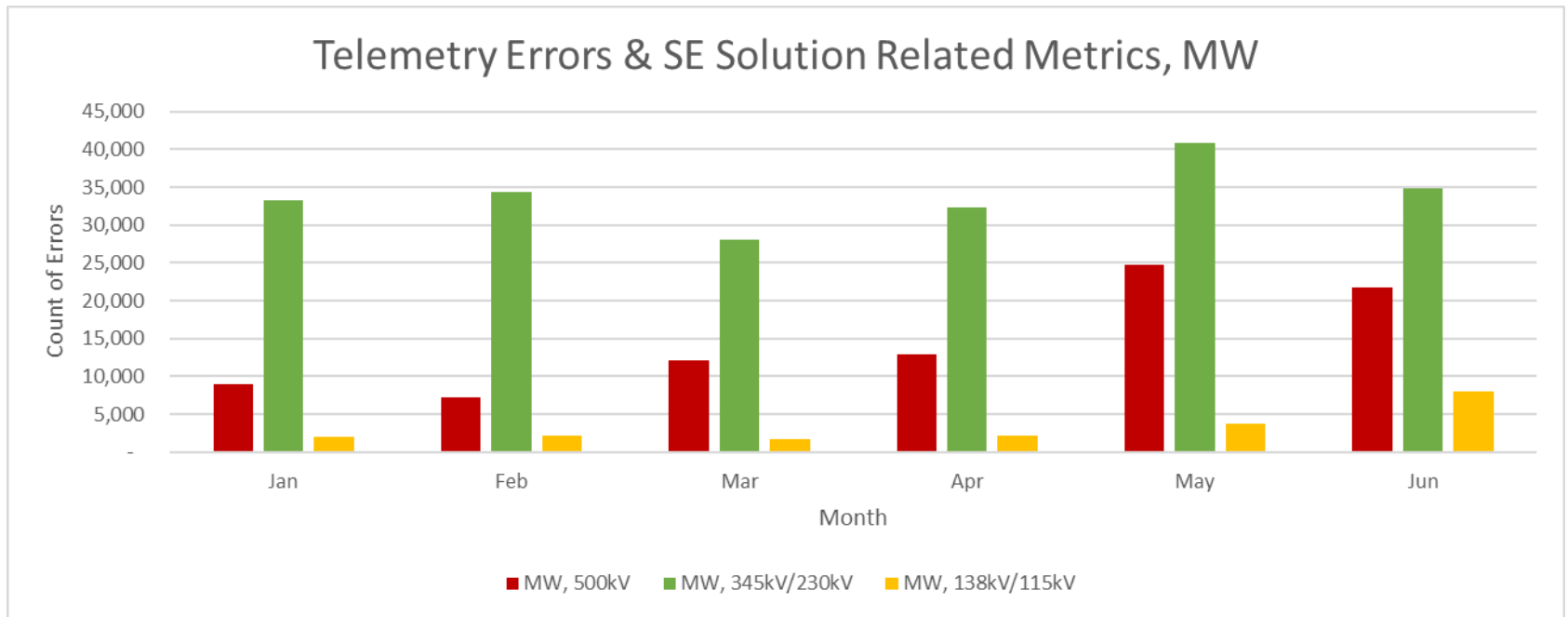
# RC Procedures Update - continued

## Upcoming Procedure Changes

RC Proc. #	Procedure Title	Status	Description of changes
RC0540A	RCW WIT Schedule Change Process	Target Publish – 8/24	Removed the macro-enabled WIT Schedule Change Form link from Background Section. Corrected Step 2 title and slight rewording to Steps 3 and 4.
RC0610	System Operating Limits Methodology For the Operations Horizon	Edits pending / Target Mid-Aug to Sept	Periodic Review: TBD
RC0610A	Criteria for Determining Facilities Critical to Derivation of IROL	Pending / Mid-Aug to Sept with RC0610	Periodic Review: TBD
RC0650	Steady-State and Dynamic System Model Validation: NERC MOD-0333-2	Target Publish – 8/24	Annual Review: No changes.
RC0680	RC Guidelines for Seasonal Assessment and Coordination Process	Target Publish – 8/24	Periodic Review: no content edits, formatting only.
RC9220	WECC Transfer Path 83 (Montana-Alberta Line)	Target Publish – 8/24	Annual Review: Minor format and grammar edits to Sections 4 & 8.
RC9320	Montana Facility Seams	Target Publish – 8/24	Annual Review: Minor format edits to Section 7.
RC9320A	Montana Facility Seams Overview	Target Publish – 8/24	Annual Review: No changes.
RC9540	Monitoring IID System	ON HOLD Pending Approval (SA) & 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	ON HOLD Pending Approval (SA) & 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.
RC9710	El Paso Adjusted Actual Net Interchange	Target Publish – 8/24	Annual Review: No changes.

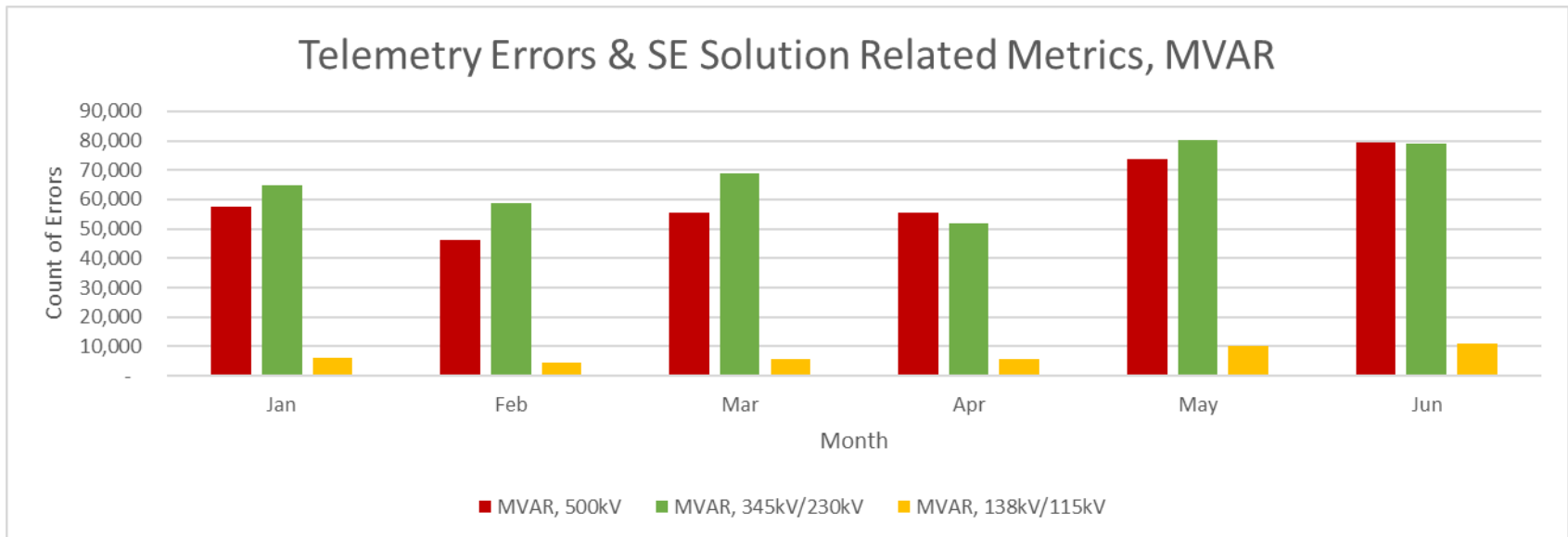
## RC Metrics Q2 2022 - SE Solution related metrics (MW)

- Count of MW anomalies observed on 500kV, 345kV, 230kV, 138kV, and 115kV lines
- *Note: Though the measurements in anomaly are not used by SE in estimating the solution, the count of anomalies provide opportunity of reducing them.*



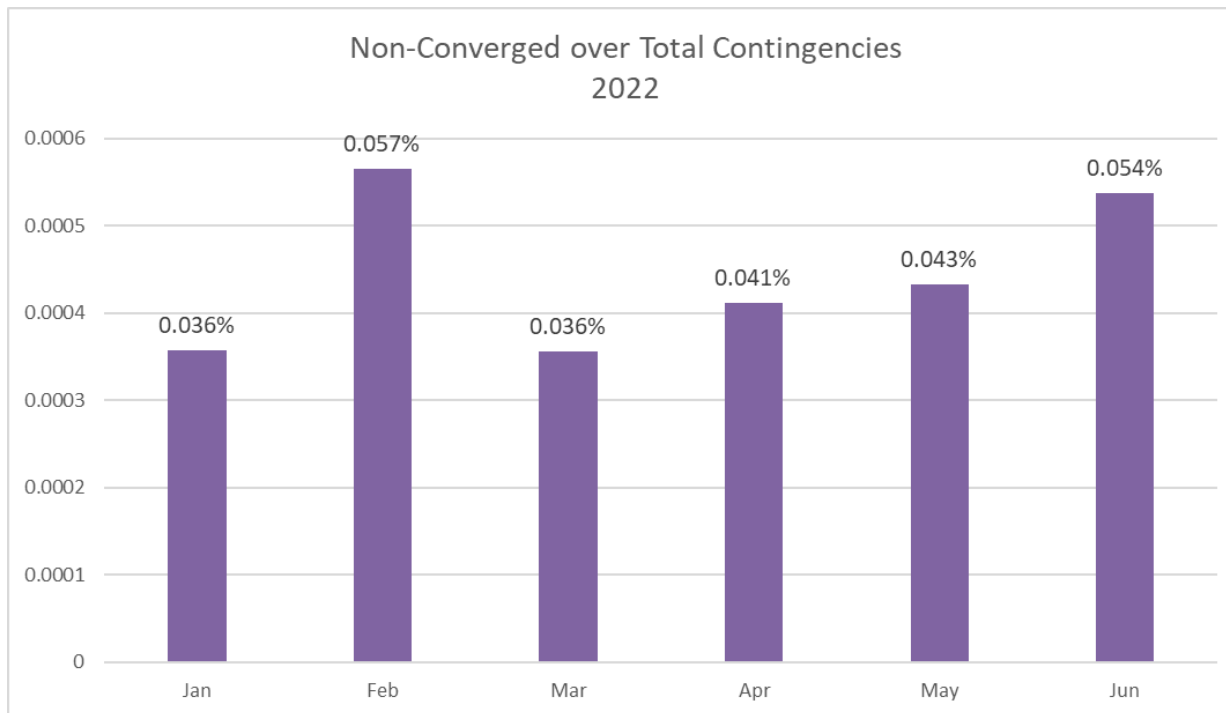
## RC Metrics Q2 2022 - SE Solution related metrics (MVAR)

- Count of MVAR anomalies observed on 500kV, 345kV, 230kV, 138kV, and 115kV lines
- *Note: Though the measurements in anomaly are not used by SE in estimating the solution, the count of anomalies provide opportunity of reducing them.*



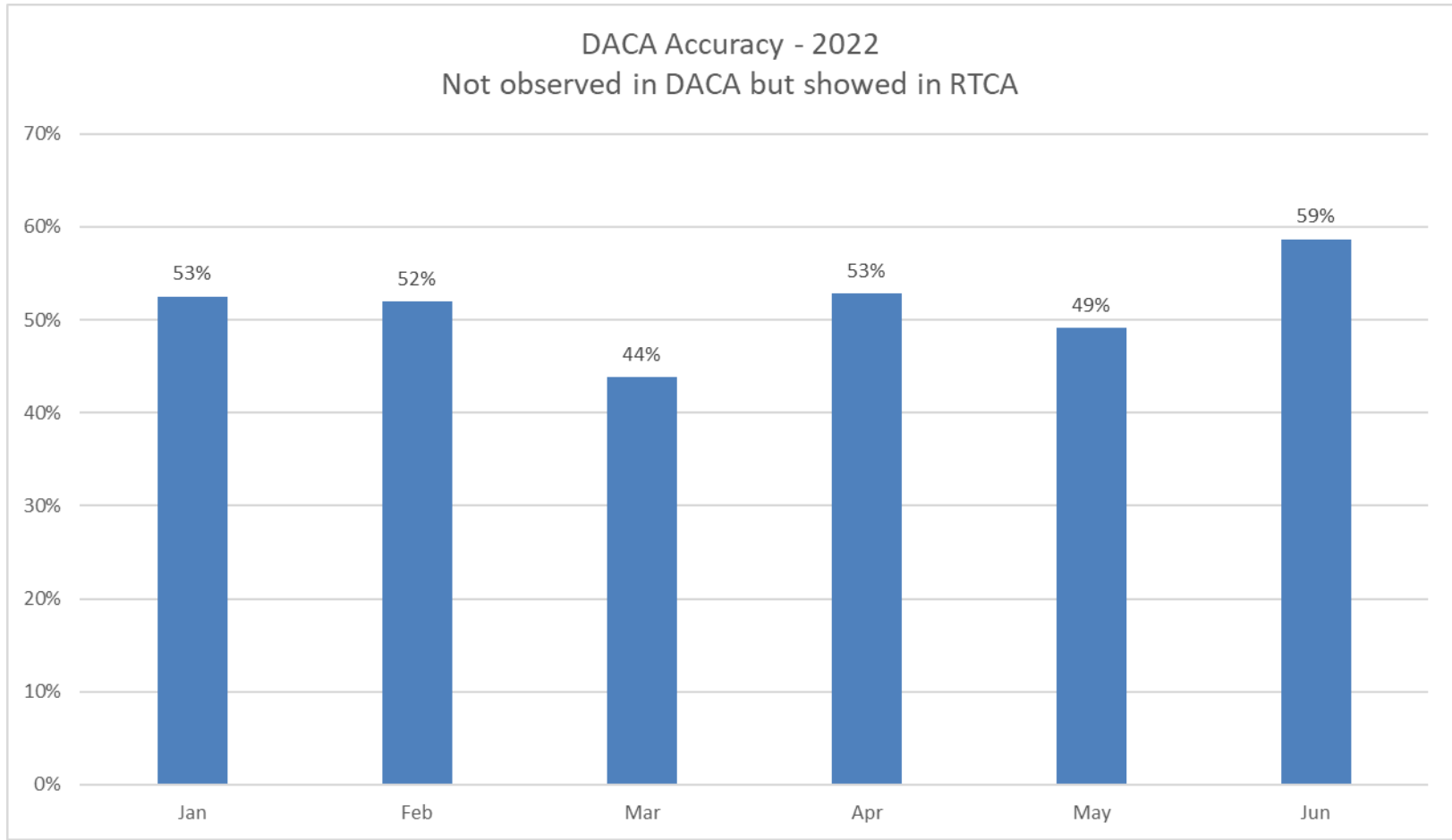
## RC Metrics Q2 2022 - RTCA Non-Converged Contingencies

- Percentage of Real-Time Contingency Analysis (RTCA) non-converged contingencies over the total number of contingencies in five-minute intervals
- *Note: Over 8,000 contingencies are solved in every RTCA solution*



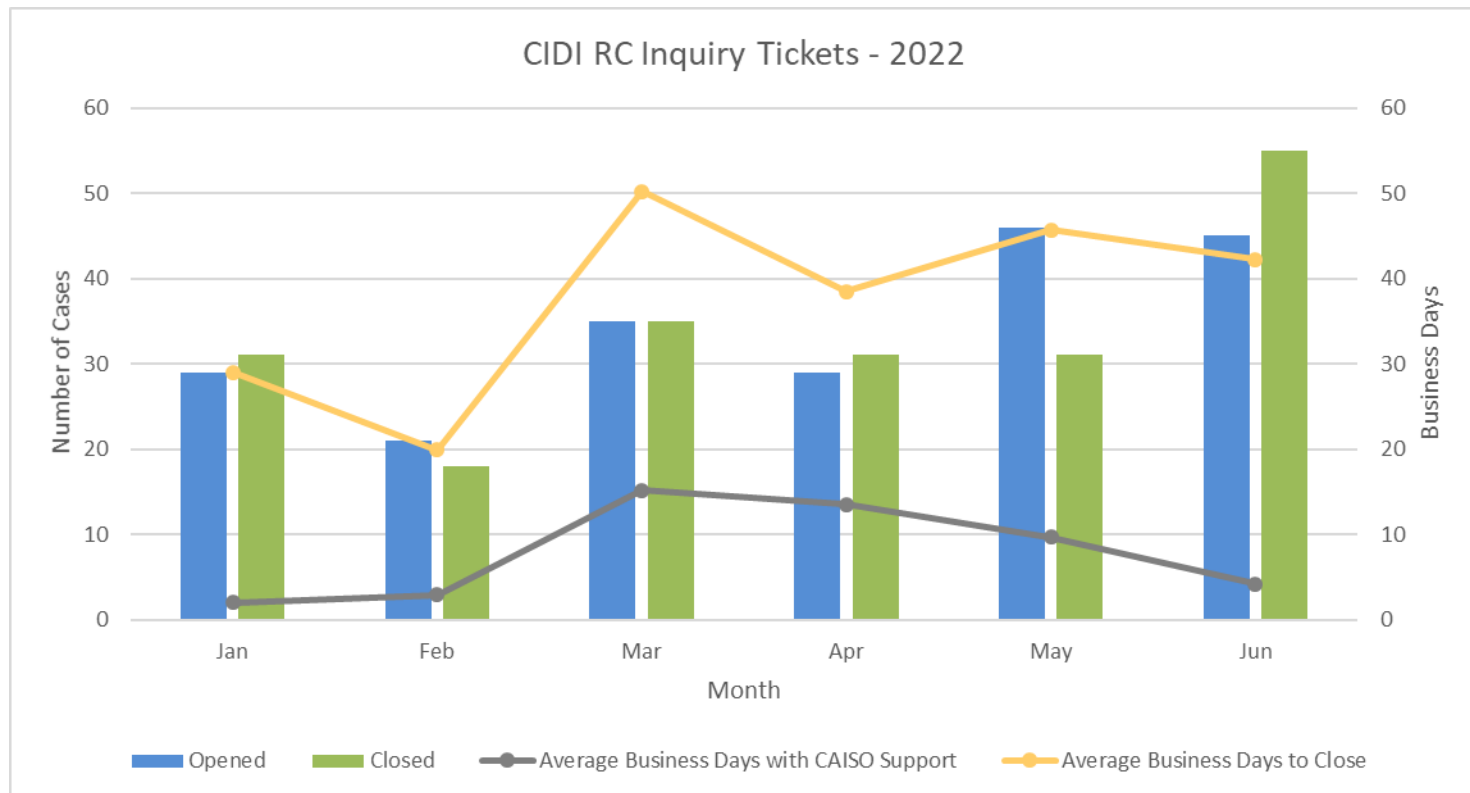
## RC Metrics Q2 2022 - DACA Accuracy

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



## RC Metrics Q2 2022- 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.



# Real-Time Operations Working Group (RTWG)

Tim Beach  
Director, Reliability Coordinator

# Real-Time Operations Working Group

- Reviewed EEA and system events
- Approved modification of the SOL Exceedance Reporting Guide (RC0130A)
- Reviewed NWMT Path 80 Operating Guide (which was approved by operationally affected parties)
- Reviewed revisions to Oregon Export IROL Operating Guide (which was approved by operationally affected parties)
- Reviewed Q2 RC Metrics



# Working Group Updates

# Data Exchange Working Group (DEWG)

Rachel Melton  
Senior Operations Compliance Analyst

# Cold Weather Task Force: IRO-010-4

**1.3.** Provisions for notification of BES generating unit(s) during local forecasted cold weather to include:

**1.3.1** Operating limitations based on:

**1.3.1.1.** capability and availability;

**1.3.1.2.** fuel supply and inventory concerns;

**1.3.1.3.** fuel switching capabilities; and

**1.3.1.4.** environmental constraints

**1.3.2.** Generating unit(s) minimum:

**1.3.2.1.** design temperature; or

**1.3.2.2.** historical operating temperature; or

**1.3.2.3.** current cold weather performance temperature determined by an engineering analysis.

# Data Exchange Working Group – Upcoming 9/7/22

Action items brought from Cold Weather Task Force:

- Updates to RC0120 and RC0120A effective 4/1/2023
  - Scheduled and Unscheduled Outages section will add guidance that operating limitations are covered by existing data request 5.1
  - Add modeling data request on static data for BES/BES impacting generators
    - Minimum Design Operating Temperature (degrees Fahrenheit)
    - Or Minimum Experienced Operating Temperature (degrees Fahrenheit)
- Anticipating EOP-012 requirements could include more specifics for resources planning to operate during the winter season. Those changes will not be in effect as of 4/1/2023.



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# Frequency Response Monitoring and Mitigation

# Agenda

- Updates on the ongoing work of the Frequency Response Monitoring and Mitigation taskforce
  - Background, Scope and Objectives
  - Current Status

# Background and Motivation

- FERC approved retirement of BAL-WECC-002-2A R2 (Spin)
- RC West performed studies of FR adequacy during the August 2020 heat wave
- RC West developed concept to monitor Frequency Response (FR) when large amounts of load are designated as Contingency Reserve.

## What should be monitored?

- Discussion on Contingencies to monitor
  - Contingencies dropping a large amount of generation
  - Known contingencies with Gen drops due to RAS
  - N-1 or Always credible N-2 contingencies in RC West with large amount of gen drop
  - Contingencies from external RCs
    - Work with other RCs to get their largest credible contingencies



# Triggers for Coordination and Operational Guidance –

- Alert Level: When adjusted Min-Freq < 59.65
  - Get frequency back to schedule / Look at BAs that are leaning more on the interconnection
  - Those with negative ACE (could lead to bringing on more generation)
  - Operating instruction from RC to operate within  $L_{10}$
  - Contact BAs that are in EEA3 for correction
  - Coordinate with external RCs
- Critical Level: When adjusted Min-Freq < 59.60
  - Identify location of contingency
  - Coordinate with external RCs
  - Redispatch to reduce the amount of generation loss due to the contingency or the RAS actions

## Current Status and Next Steps

- Final Draft Procedure sent out for review. Internal and External Feedback received.
  - Discussion with impacted entities to determine RT validation process to review frequency at load buses with UFLS
- RCs and Impacted TOPs expected to start Parallel Operations for procedure in July to:
  - ensure RMOEs and RCs are trained on validation process (Monitoring frequencies of load buses with UFLS)
  - TOPs have a chance to review the cases where there may be risk of UFLS triggering for credible contingencies
  - RC West and impacted entities are in agreement on process to reduce path flows (e.g. COI, PDCI)
- Procedure expected to be in-effect by start of Winter



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# Websmart OMS Update

# WEBSMART OMS UPDATE

- 06/13/2022 WebSmartOMS was deployed to production
- Migrate WebOMS from IE Explore to Chrome
- Main function remain the same
- RC0630A webSmartOMS User manual has been updated with new interfaces

# Operations Planning (OPWG) and Real-Time Operations Working Group (RTWG) Joint Task Forces

# RTWG Update – Joint Voltage Violation Task Force (JVSOLTF)

- **Changes to allow Normal SVLs with Time-Duration**
  - Allow TOPs submit multiple Normal System Voltage Limits (SVLs) with time duration.
  - RC West will select only the least restrictive limit for RTCA pre-contingency (base case) monitoring, and this limit will be treated as a continuous limit in Real-time.
  - TOP must ensure that SVLs do not exceed Protection settings, to result in equipment failure in Real-time.
- **In Progress**
  - Reviewing exclusion requirements for line side series capacitor limits
  - Reviewing implementation feasibility and submission process for SVLs and excluded buses

# Future Agenda Items

- The next RC West Oversight Committee meeting is scheduled on November 16, 2022; visit [RC West webpage](#) for additional details
- Send topic suggestions to [rc-westoc@caiso.com](mailto:rc-westoc@caiso.com).

# Open for Public Comments



# Public Session Adjourned