



California ISO



RC West

RC West Oversight Committee

Public Session

November 10, 2020

1:00 - 2:30 p.m. Pacific

Agenda

| Time: | Topic: | Presenter: |
|-------------|--|---|
| 1:00 - 1:05 | Welcome/agenda | Kristina Osborne |
| 1:05 - 1:10 | Roll call | Ben Brandt - Chair |
| 1:10 – 1:30 | General business <ul style="list-style-type: none"> • ISO executive leadership update • 2021 public meeting schedule • Decision: Revised RC West Oversight Committee Charter | Mark Rothleder, COO, CAISO Committee discussion |
| 1:30 – 1:55 | RC West Operations Update <ul style="list-style-type: none"> • COVID-19 Update • August heat wave events • Procedures update • RC metrics update | Tim Beach, CAISO Kathy Fernandez and Licheng Jin, CAISO Rachel Lucas, CAISO |
| 1:55 – 2:20 | Working Group Updates <ul style="list-style-type: none"> • DEWG • OPWG • RTWG • TWG | Rachel Lucas, CAISO Dede Subakti, CAISO Tim Beach, RC West Tami Elliott, CAISO |
| 2:20 – 2:25 | Future agenda items | |
| 2:25 | Public Comment | |
| 2:30 | Public Session Adjourned | |

California ISO Executive Leadership Update

Mark Rothleder
Chief Operating Officer

2021 RC West Oversight Committee Public Meeting Schedule

- Meetings will be held quarterly or as needed (exact dates TBD)
 - February
 - May
 - August
 - November
- Dates will be publicly communicated once confirmed
- Meetings will be held remotely until further notice
- Visit RC West webpage on ISO website for more details

<http://www.caiso.com/informed/Pages/RCWest/Default.aspx>

RC Oversight Committee Charter Revisions – Committee Discussion / Decision

Update: RC West Operations

Tim Beach
Director, Reliability Coordination

Licheng Jin
Manager, Operations Planning - South

Kathy Fernandez
Operations Procedure Control Specialist

Rachel Lucas
Operations Compliance Analyst

Operations Update

- COVID
 - No change in operating posture
 - Reactivated third control room for at risk staff
- Heat Storm August 13th – September 6th 2020
 - Set Historical Peak on 8/17 of 127.6 GW
- October wildfires and unseasonably warm weather
 - Current load pattern in the 75 GW range

August 2020 Heat Wave Events

- Energy Emergency Alerts (EEA)

| | EEA 1 | EEA 2 | EEA 3 | Total |
|------------|-------|-------|-------|-------|
| 7/1/2019 | 30 | 9 | 13 | 52 |
| Heat Storm | 17 | 9 | 9 | 35 |

- 10 Balancing Authorities involved in Heat Storm EEA's
- WECC/NERC issued data requests and event analysis team
- CAISO, CPUC, AND CEC issued Preliminary Report on Causes of August Rotating Outages

RC Procedures Update

Recently Published Procedures:

- **RC0630 Outage Coordination Process** – Effective 11/05/20: Periodic Review with minor edits (Coordinated with OPWG).
- **RC0630A WebOMS User Manual** – Effective 11/05/20: Periodic Review with minor edits (Coordinated with OPWG).
- **RC9720 PACE Path Operating Procedure** – Effective 11/05/20: Annual Review, removed Table 1C from Appendix and other minor edits.
- **RC9220 WECC Transfer Path 83 (Montana-Alberta Line)** – Effective 11/01/20: Annual Review with minor edits.
- **RC0120A RC West IRO-010 Data Specification** – Effective 11/02/20: Various minor edits.
- **RC9130 Path 61/Lugo-Victorville** – Effective 11/01/20: Various minor edits throughout.
- **RC0510 Quality Assurance of Monitoring and Analysis Tools** – Effective 10/22/20: Minor edits relating to GMS messaging.
- **RC9110 NW Washington Area Import Area IROL** – Effective 10/08/20: Annual Review with minor edits.
- **RC0690 PRC-012 Remedial Action Schemes** – Effective 10/07/20: Initial procedure (Approved by Oversight Committee).
- **RC0690A PRC-012 Remedial Action Schemes – RAS Review Checklist** – Effective 10/07/20: New Checklist (Approved by Oversight Committee).
- **RC0690B PRC-012 Process – RAS Design Review** – Effective 10/07/20: Initial procedure (Approved by Oversight Committee).
- **RC0690C PRC-012 Remedial Action Schemes – Corrective Action Plan (CAP) and Results** – Effective 10/07/20: New Checklist (Approved by Oversight Committee).
- **RC9030 Mitigating Forced and Inter-area Oscillations** – Effective 10/02/20: Annual review with minor edits.
- **RC0620 Operations Planning Analysis (Next Day)** – Effective 10/01/20: Annual review, minor edits & updated to RC West.
- **RC0120B RC West IRO-010 Data Specification for Adjacent RC's** – Effective 9/24/20: Updated effective date of RC-1.16.
- **RC9560 SDG&E/CENACE Import Operational Guide** – Effective 9/03/20: Various minor edits.
- **RC9000 Open Loop Guideline** – Effective 8/20/20: Annual Review with minor edits.
- **RC9320 Montana Facility Seams** – Effective 8/20/20: Annual Review with minor edits.
- **RC9320A Montana Facility Seams Overview** – Effective 8/20/20: Annual Review with minor edits.
- **RC9030 Mitigating Forced and Inter-area Oscillations** – Effective 8/13/20: Various minor edits.
- **RC0670A PRC-002-2 RC West DDR List** – Effective 8/06/20: Various minor edits.
- **RC9130 Path 61/Lugo-Victorville IROL** – Effective 8/06/20: Various minor edits.

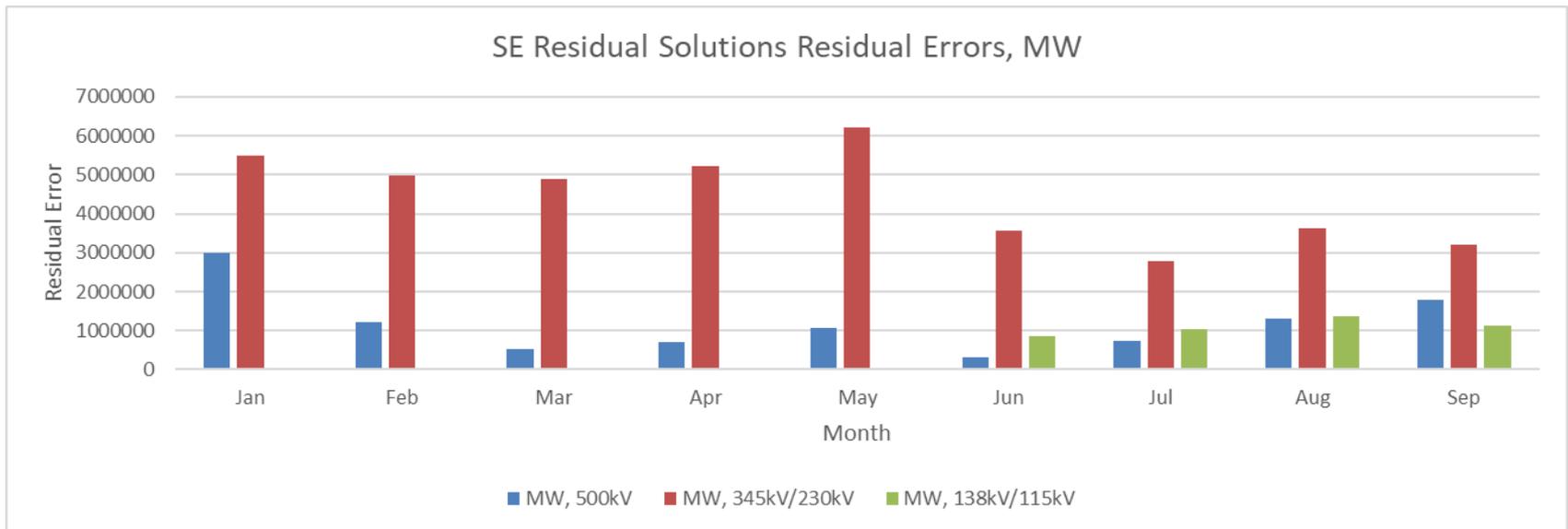
RC Procedures Update - continued

Procedures Updates Planned for this Quarter:

- RC0330A List of Ties with Neighboring RCs
- RC0470 Loss of Control Center Functionality
- RC0470B Evacuation and Loss of Control Center Functionality Checklists
- RC0610 System Operating Limits Methodology For the Operations Horizon
- RC0610A Criteria for Determining Facilities Critical to Derivation of IROL
- RC9710 El Paso Adjusted Actual Net Interchange

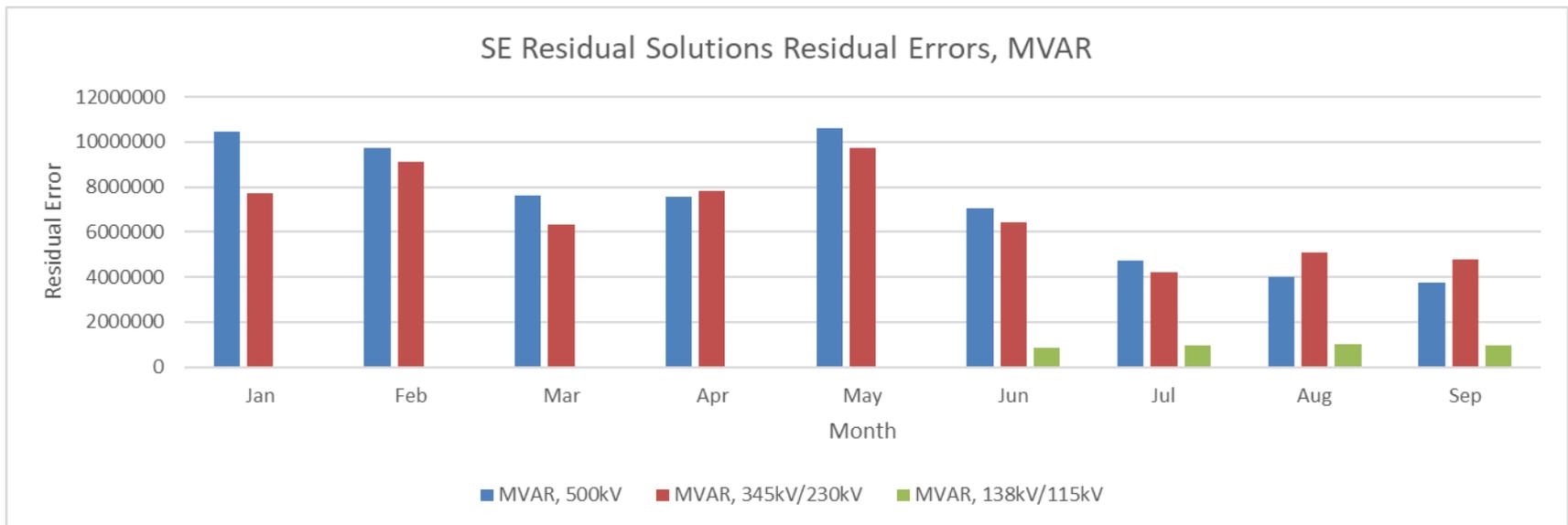
RC Metrics Q3 - State Estimator Solutions Residual Errors

- SE Residual Error – MW flow on 500kV, 345kV, and 230kV lines
- New chart in Q3: Adding lower voltages (138kV/115kV lines) data as of June
- Observed significant improvement on accuracy of 345kV and 230kV 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.*



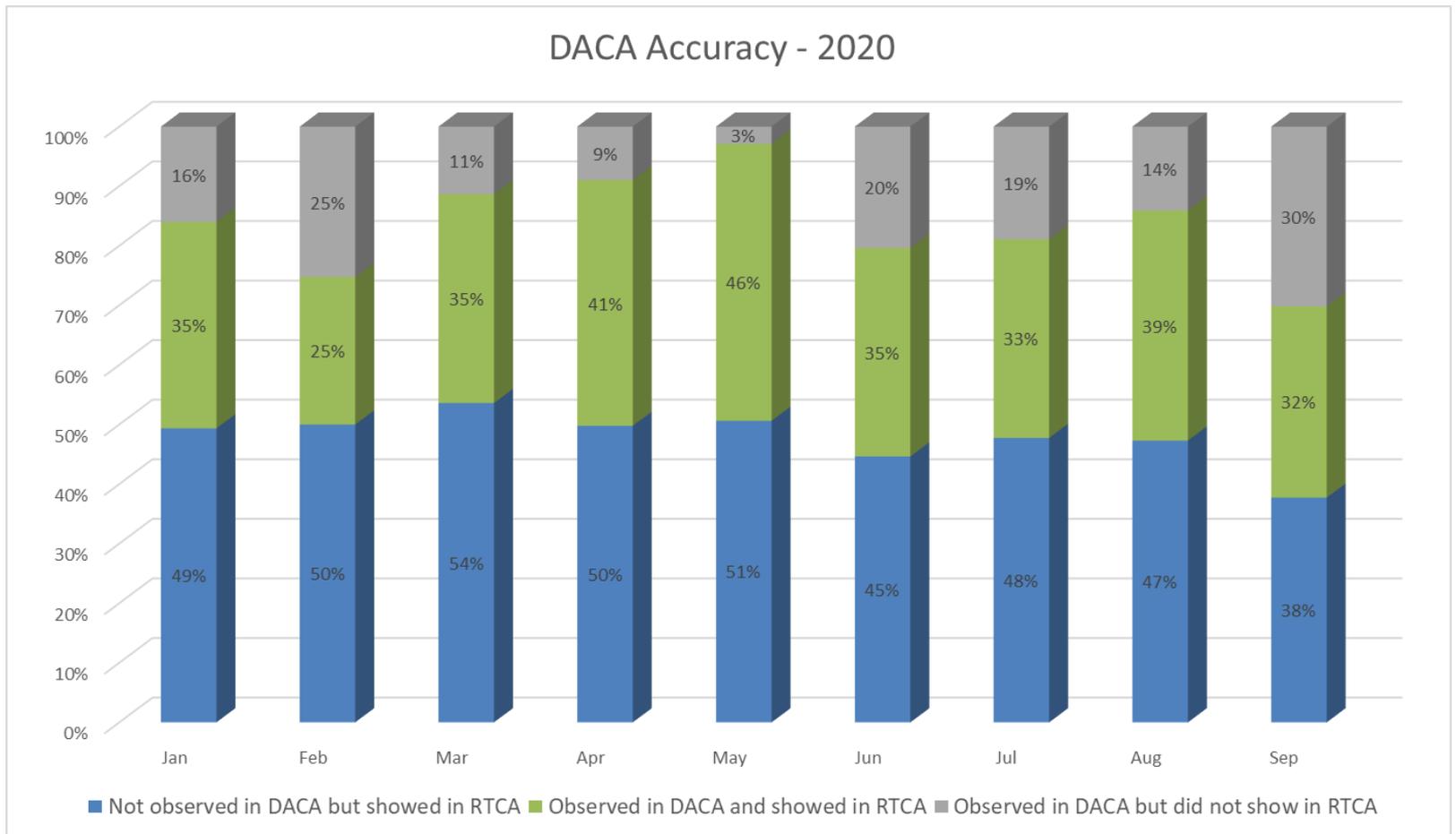
RC Metrics Q3 - State Estimator Solutions Residual Errors

- SE Residual Error – MVAR flow on 500kV, 345kV, and 230kV lines
- New chart in Q3: Adding lower voltages (138kV/115kV lines) data as of June
- Observed significant improvement on accuracy of 500kV, 345kV, and 230kV 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.*



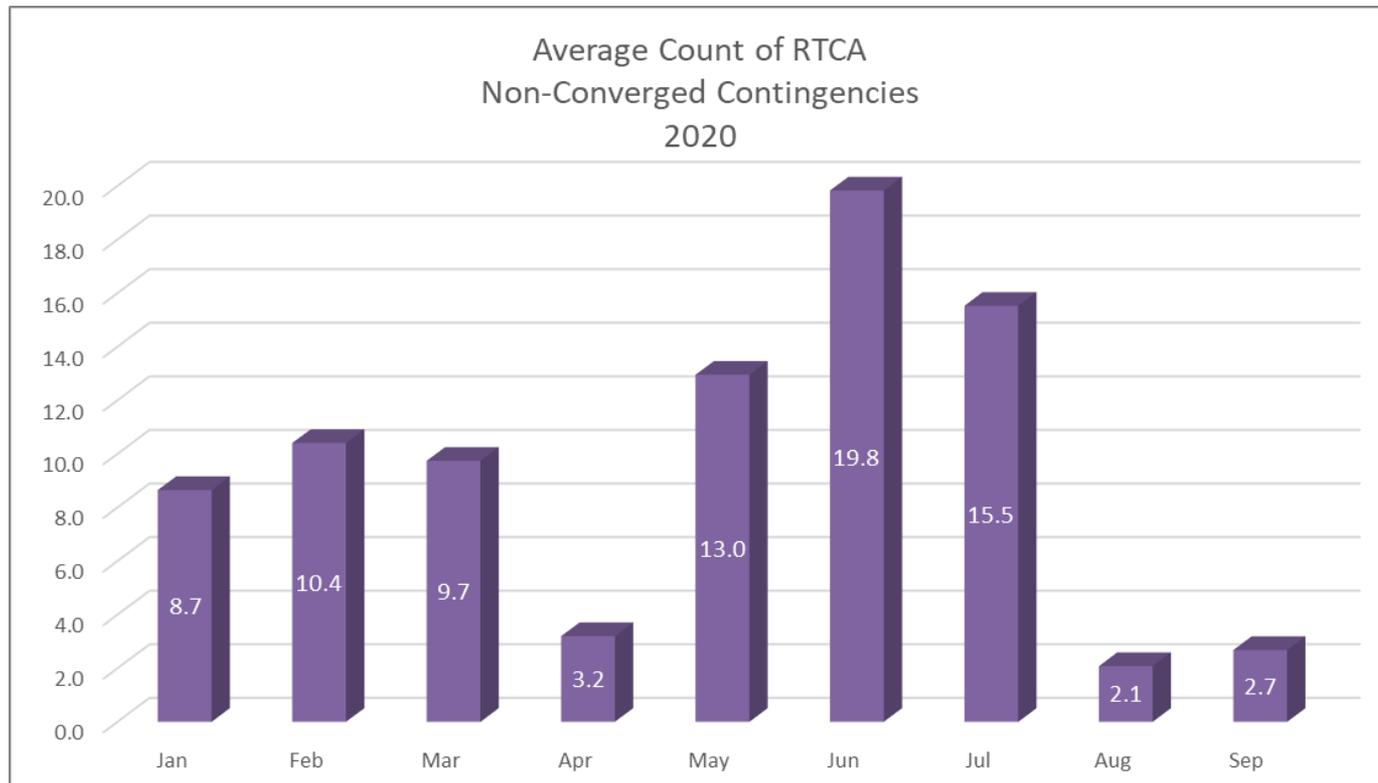
RC Metrics Q3 - DACA Accuracy

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



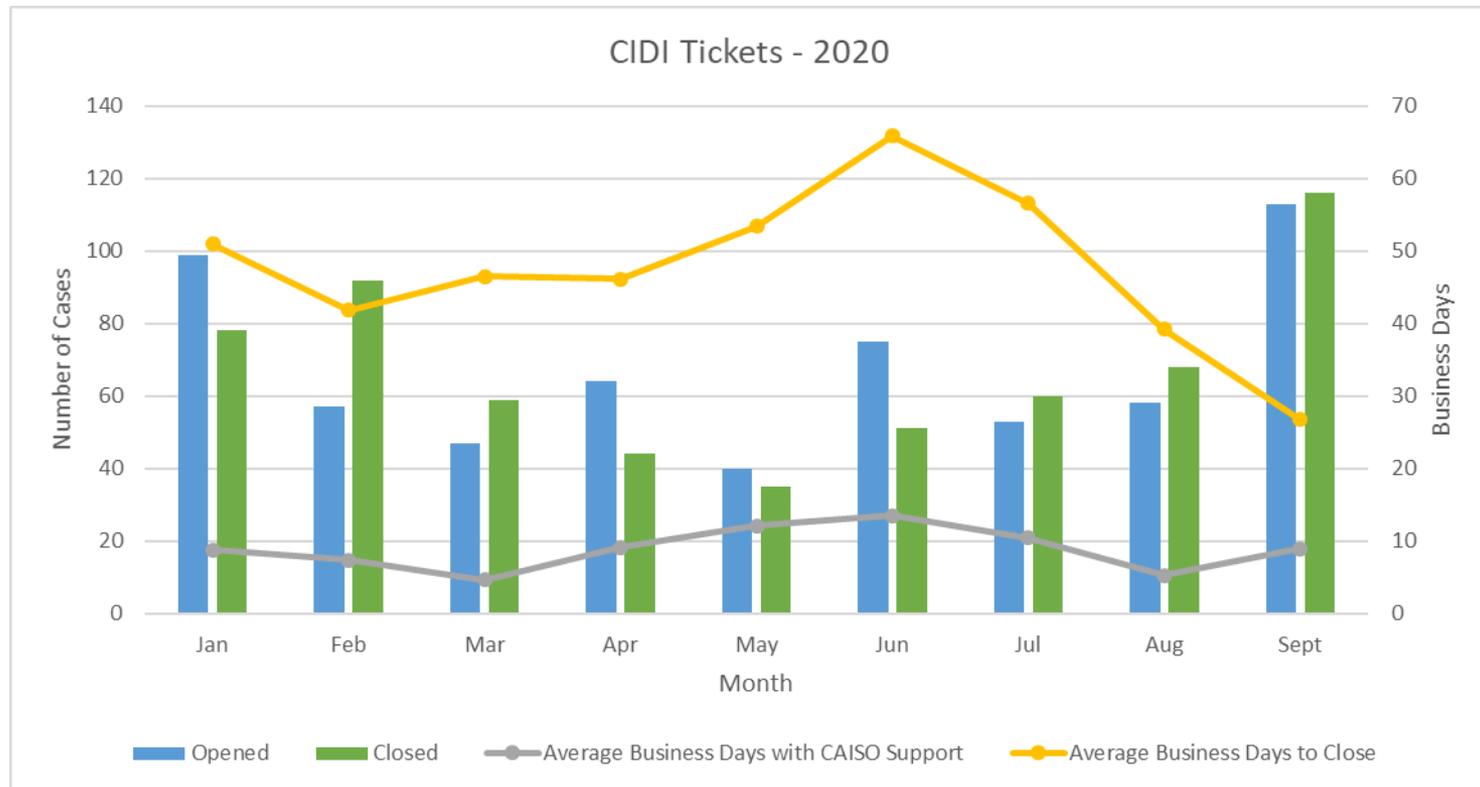
RC Metrics Q3 - RTCA Non-Converged Contingencies

- Count of RTCA Non-Converged Contingencies in five minute intervals
- Averaging close to 9 non-converged contingencies every run
- *Note: Over 8,500 contingencies are solved in every RTCA solution*



RC Metrics Q3 - 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 earlier in the year that haven't been closed.



Working Group Updates

Data Exchange Working Group

Rachel Lucas
Operations Compliance Analyst

IRO-010 Data Specification – Published 11/2/2020

- IRO-010 Specification (RC0120A)
 - Added new requests 2.22 and 2.23 for single value of storage MW output and state of charge via ICCP, effective 1/1/2021
 - Updated request 6.1 data transfer method and CAISO guidance document to include webOMS for instances such as double modeling
 - Added tab for entity exceptions to data requests

Modeling Templates & Guides – Published 11/2/2020

- Contingency Definition Template (Character naming convention)
- Network Model Scope Template (CIM file option)
- RAS ICCP Mapping Template (New template to RIMS)
- Modeling Submission Checklist (reflecting changes in templates)
- Modeling Changes User Guide (reflecting changes in templates)

Operations Planning Working Group

Dede Subakti
Director, Operations Engineering Services

OPWG Activities

- Completed review of Outage Coordination Process
 - RC0630 Outage Coordination Process
 - RC0630A WebOMS User Manual
- Completed review of Operational Planning Analysis (OPA) Process
 - RC0620 Operations Planning Analysis (Next Day)
- Completed review of System Operating Limit (SOL) methodology
 - Upcoming changes to:
 - RC0610 System Operating Limits Methodology For the Operations Horizon
 - RC0610A Criteria for Determining Facilities Critical to Derivation of IROL
- Completed new PRC-012 Remedial Action Schemes (RAS) process
 - RC0690 PRC-012 Remedial Action Schemes
 - RC0690A PRC-012 Remedial Action Schemes – RAS Review Checklist
 - RC0690B PRC-012 Process – RAS Design Review
 - RC069C PRC-012 Remedial Action Schemes – Corrective Action Plan (CAP) and Results

Real-Time Operations Working Group

Tim Beach
Director, Reliability Coordination

RTWG

- WAVSA-TF
 - Posted a PI Vision User Guide on the RC Portal
 - Working on a time out issue
- Continue BA capacity simulations in 2021
 - Review reserve management communications regarding RSG member BAs
- Reviewing RC metric levers
- Moving to bi-monthly meeting schedule in 2021

Training Working Group

Tami Elliott
Manager, SAT Development and Administration

Future Agenda Items

Open for Public Comments

Public Session Adjourned