RC West Oversight Committee

Public Session
September 17, 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 – 1:25	General business • **Decision:** Resolution of appreciation • **Discussion:** RC West Oversight Committee Charter review	Ben Brandt – Chair Tricia Johnstone
1:25 – 1:55	**RC West Operations Update** • COVID-19 Update • Energy Emergency Alerts • IRO-002 monitoring • Change to SW conference call • Procedures update • RC metrics update	Tim Beach Kathy Fernandez Rachel Lucas, Ginger Quintavalla
1:55 – 2:20	**Working Group Updates** • **Decision:** PRC-012 approval for RC0690 and attachments	Tim Beach (RTWG) Rachel Lucas (DEWG) Tricia Johnstone (PSRWG) Aung Oo (HANA CPG) Rachel Lucas (OPWG) Tami Elliott (TWG)
2:20 – 2:25	**Future agenda items**	
2:25	**Public Comment**	
2:30	**Public Session Adjourned**	

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Decisional Item: Resolution

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Resolution of Appreciation - Michelle Cathcart

WHEREAS, Michelle Cathcart, was elected as Chair of the RC West Oversight Committee on March 14, 2019, and

WHEREAS, Ms. Cathcart added tremendous value to the RC West Oversight Committee throughout her tenure, and

WHEREAS, Ms. Cathcart enhanced the RC West Oversight Committee's effectiveness bringing her experience and knowledge to bear on the issues it faced and the stakeholders it represented, and

WHEREAS, Ms. Cathcart's dedication to reliability and fairness in all matters related to the RC West implementation and operation manifested in effective resolution of complex and difficult issues, and

WHEREAS, Ms. Cathcart's broad industry experience was a source of valuable insight for her colleagues, and

WHEREAS, Ms. Cathcart shared her knowledge and assessments openly with her colleagues, and

WHEREAS, Ms. Cathcart has been a fervent leader, a respected expert, and a friend in every aspect of her career,

BE IT RESOLVED, that the RC West Oversight Committee members hereby express their utmost appreciation and sincerest gratitude to Ms. Cathcart for her service and dedication to RC West, and its many stakeholders and their varied interests.

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RC West Oversight Committee Charter – Annual Review

- Charter requires an annual review of:
  - Composition and structure of working groups
  - The Charter to determine if any revisions are needed

- Discuss creation of smaller task force to facilitate the review of the Charter and other oversight activities

- Request feedback from committee members

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Update: RC West Operations

Tim Beach
Director, Reliability Coordination

Kathy Fernandez
Operations Procedure Control Specialist

Rachel Lucas
Operations Compliance Analyst

Ginger Quintavalla
Manager, Customer Experience

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RC West Operations and COVID-19 and EEA Update

- COVID-19
  - No changes to operating posture
  - Quarantine process established
  - Maintaining sequester plan

- Energy Emergency Alerts (July 27th- Sept 5th)
  - 34 EEA's declared
  - EEA 1 (17)
  - EEA 2 (7)
  - EEA 3 (10)

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IRO-002 Monitoring and SW Daily Conference call

- IRO-002 External Monitoring

  – July 1st implemented RC West external monitoring

  – Engineering staff developed and coordinated list of Contingencies with multiple RC area impacts.

- Daily South West Area Conference change

  – Previously held every morning at 4am

  – Now held on ad-hoc basis, examples are;

    - Change in OPA after publication

    - Peak Load conditions

    - Upon BA/TOP request

    - Procedure RC0320

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RC Procedures Update

Recently Published Procedures:

- **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.

- **RC0510 Quality Assurance of Monitoring and Analysis Tools** – Effective 7/16/20: Various minor edits.

- **RC9310 Northern Nevada (NNEV) N-1-1 Mitigation Procedure** – Effective 7/02/20: Various minor edits.

- **RC9520 Monitoring of LDWP N-1-1 Potential Cascading** – Effective 7/02/20: Various Minor edits.

- **RC0320 Outage Review and Coordination** – Effective 7/01/20: Various minor edits.

- **RC0330 Coordination with Neighboring Reliability Coordinators** – Effective 7/01/20: Minor edits.

- **RC0330B Contingency Monitored for Neighboring RC Area** – Effective 7/01/20: New Procedure issued.

- **RC0600 RC West Implementation of Common Interconnection-wide Methodology** – Effective 7/01/20: Various minor edits.

- **RC0120 Guidelines for RC West IRO-010 Data Specification and Collection** – Effective 6/26/20: Various minor edits.

- **RC0120A RC IRO-010 Data Specification** – Effective 6/26/20: Annual Review with various edits.

- **RC0120B RC IRO-010 Data Specification for Adjacent RCs** – Effective 6/26/20: Annual Review with various edits.

- **RC0140 Guidelines for Sending Messages Across RC Seams** – Effective 6/24/20: Periodic Review with minor edits.

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RC Procedures Update - continued

June 1, 2020

(Due to retirement of IROL)

Retired >   RC9140 SDG&E/CENACE Import Operational Guide

RC9150 SDG&E Import Operational Guide

Issued >   RC9560 SDG&E/CENACE Import Operational Guide

This procedure provides an overview of the issue requiring monitoring and action for the specific conditions described on the SDG&E/CENACE Import cut plane.
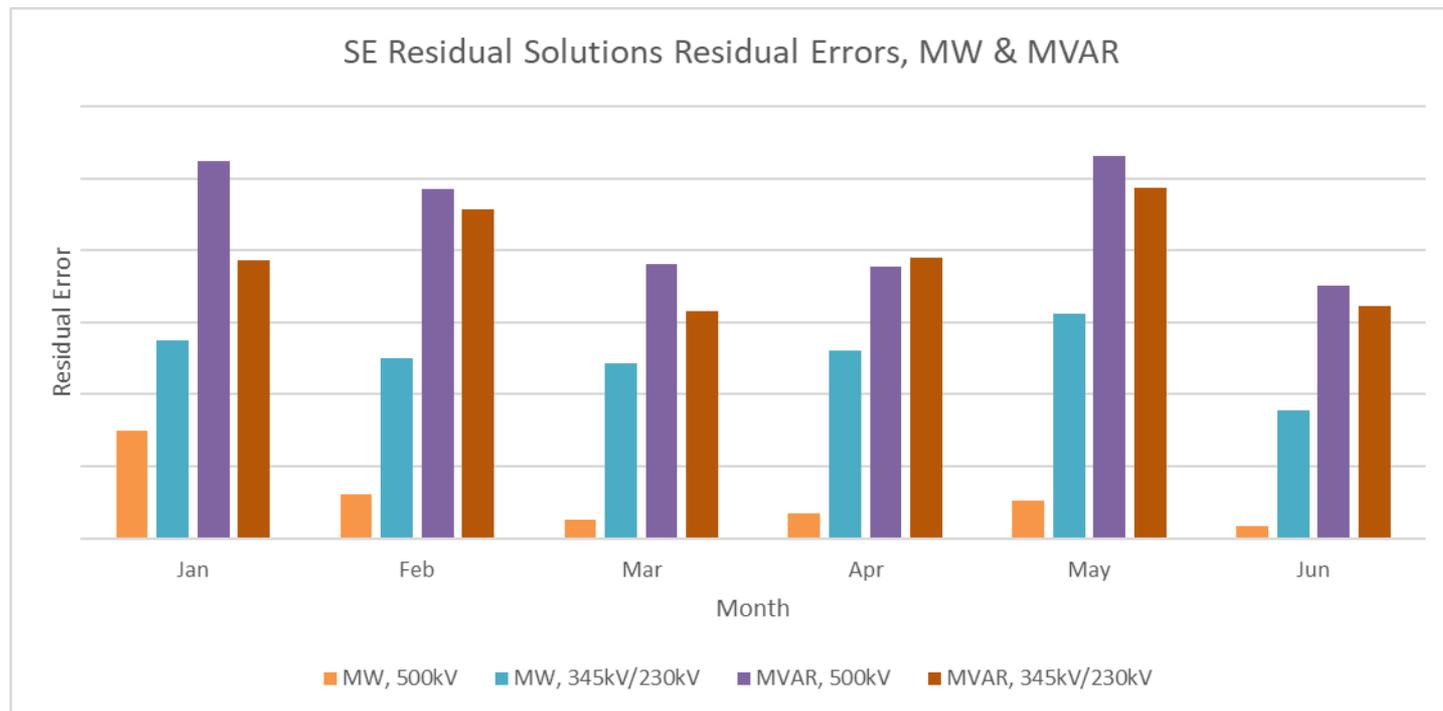
Procedures Updates Planned for Next Quarter:

- RC0470 Loss of Control Center Functionality
- RC0470B Evacuation and Loss of Control Center Functionality Checklists
- RC0600 RC West Implementation of Common Interconnection-wide Methodology
- RC0600A Western Interconnection Modeling and Monitoring Common Methodology
- RC0610 System Operating Limits Methodology For the Operations Horizon
- RC0610A Criteria for Determining Facilities Critical to Derivation of IROL
- RC0620 Operations Planning Analysis (Next Day)
- RC0630 Outage Coordination Process
- RC0630A WebOMS User Manual
- RC9030 Mitigating Forced and Inter-area Oscillations
- RC9110 NW Washington Area Import IROL
- RC9210 Path 3 (Northwest – British Columbia) Operating Procedure
- RC9220 WECC Transfer Path 83 (Montana-Alberta Line)
- RC9710 El Paso Adjusted Actual Net Interchange
- RC9720 PACE Path Operating Procedure

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RC METRICS – Q2 UPDATE
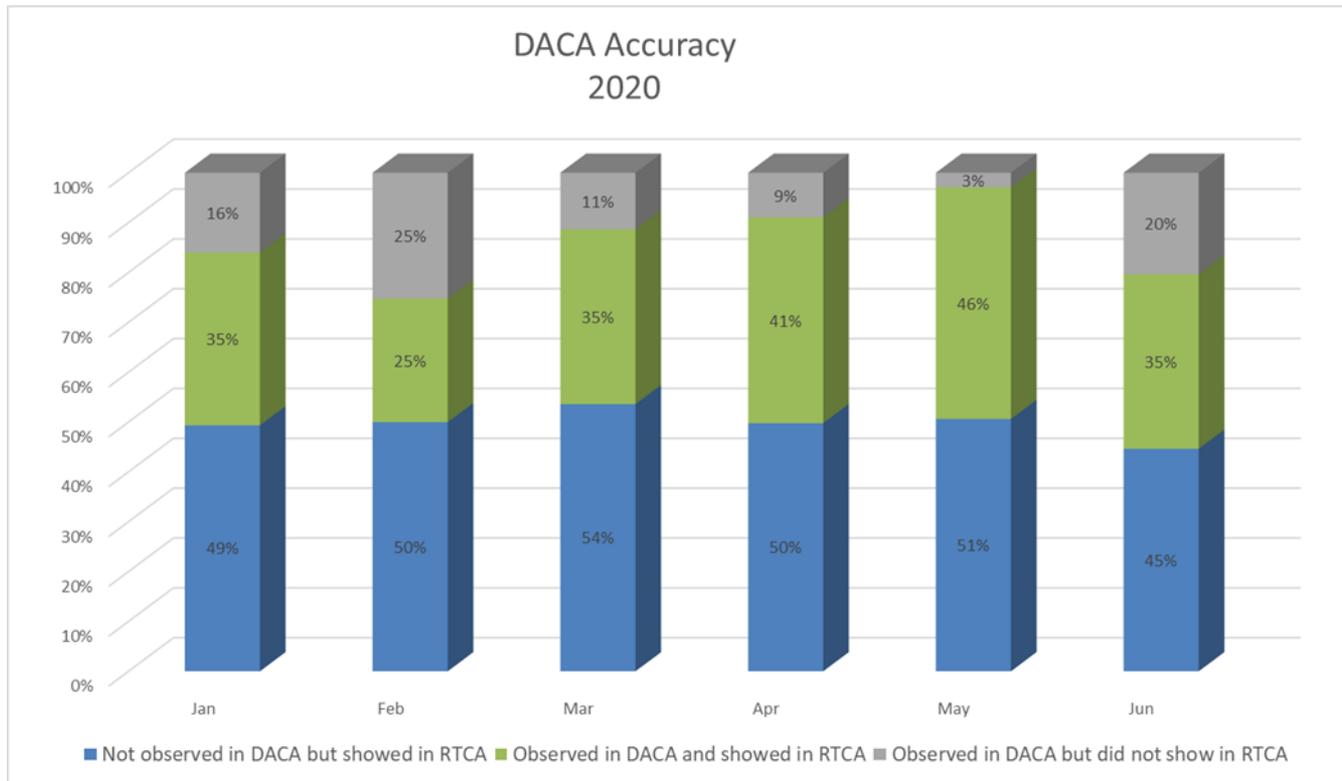
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RC Metrics Q2 – State Estimator Solutions Residual Errors

- SE Residual Error – MW & 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 500kV line accuracy
- *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.*
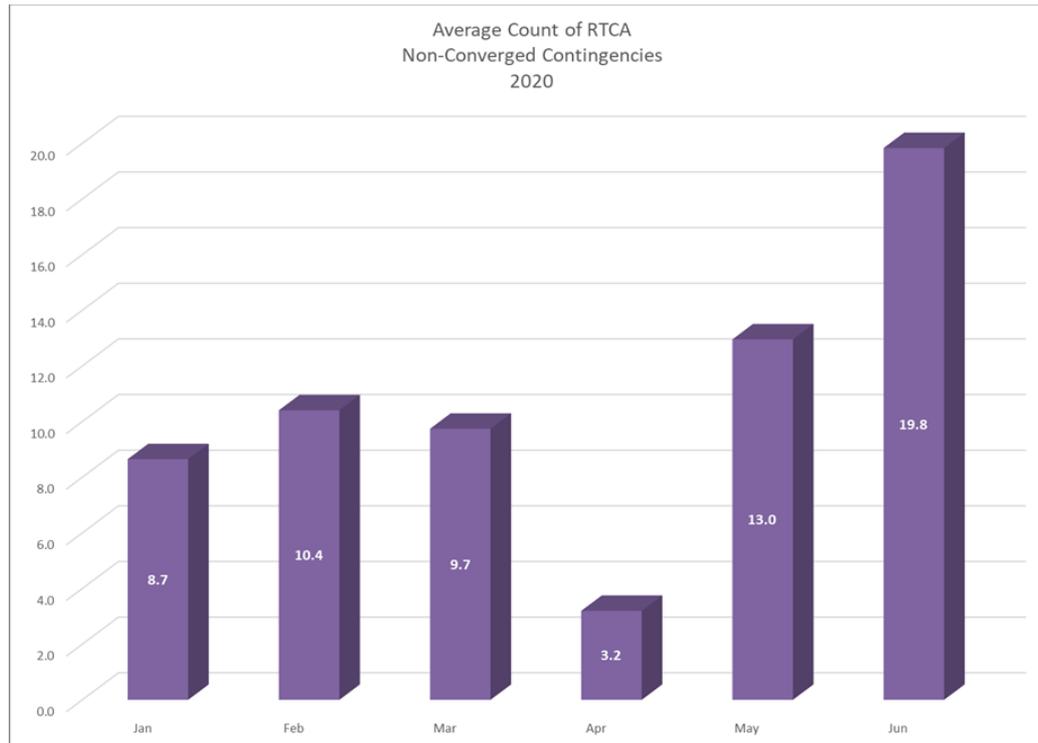

SE Residual Solutions Residual Errors, MW & MVAR

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RC Metrics Q2 – DACA Accuracy

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

DACA Accuracy
2020

Legend: Not observed in DACA but showed in RTCA ■ Observed in DACA and showed in RTCA ■ Observed in DACA but did not show in RTCA

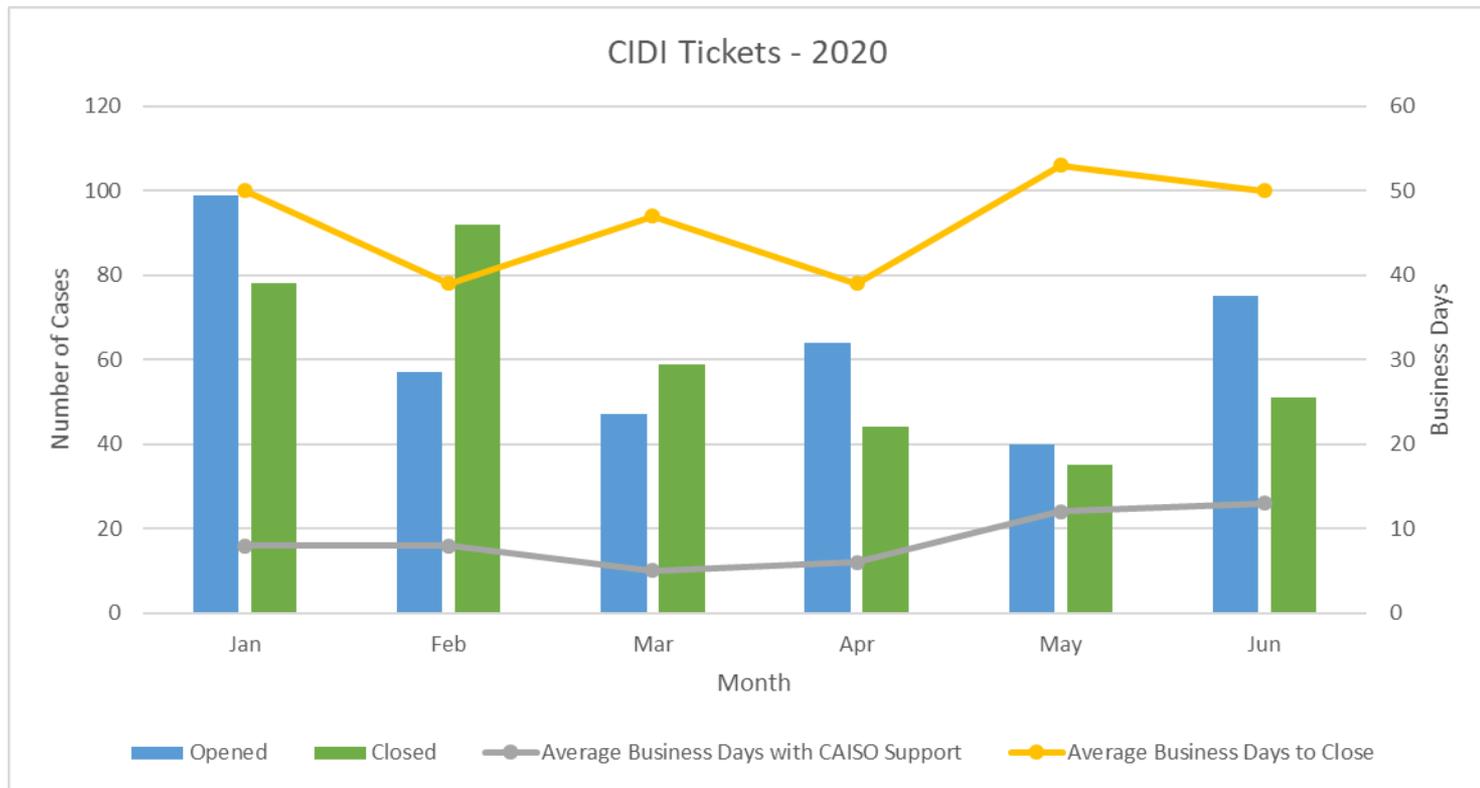| Month	Not observed in DACA but showed in RTCA	Observed in DACA and showed in RTCA	Observed in DACA but did not show in RTCA
Jan	49%	35%	16%
Feb	50%	25%	25%
Mar	54%	35%	11%
Apr	50%	41%	9%
May	51%	46%	3%
Jun	45%	35%	20%

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RC Metrics Q2 – RTCA Non-Converged Contingencies

- Count of RTCA Non-Converged Contingencies in five minute intervals

- Averaging close to 11 non-converged contingencies every run

- *Note: Over 8,500 contingencies are solved in every RTCA solution*

Average Count of RTCA Non-Converged Contingencies 2020

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RC Metrics Q2 – CIDI/Issue Resolution Progress

This data has been updated as of June 2020 to include time for when a ticket has been identified as a defect or an enhancement. A new line has also been added to include total support time of RC Inquiry tickets, regardless of status.

CIDI Tickets - 2020

Legend: Opened | Closed | Average Business Days with CAISO Support | Average Business Days to Close

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Working Group Updates

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Real-Time Operations Working Group

Tim Beach
Director, Reliability Coordination

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RTWG

- WAVSA-TF, developing mock up displays for PI Vision

- RC Portal contact list links improved

- OPWG Joint Task Force for Operating Guide and Methodology reviews
  - Outage Coordination RC0630
  - Operations Planning Analysis RC0620
  - SOL Methodology RC0610
  - Review OREX Operating Guide RC0920

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Data Exchange Working Group

Rachel Lucas
Operations Compliance Analyst

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IRO-010 Data Specification – Published 6/26/2020

- RC0120 – IRO-010 Guidance
  - Expanded request 6.1 to include default load Pfixed and Qfixed values
  - Clarified requests 6.17 and 6.25 based on working group discussions

- RC0120A – IRO-010 Specification
  - Added new request - 6.25 for the Dynamic Model for Transient Stability Analysis, effective 9/11/2020
  - Added new request - 6.26 for the EMS screenshot of the RAS display used by TOP or BA System Operators, if available, effective 9/11/2020
  - Added new request - 6.27 for the RAS information outlined in RC0690, effective 1/1/2021

- RC0120B – IRO-010 Specification for Adjacent RCs
  - Updated to reflect changes to RC0120A, except for requests 6.26 and 6.27, as they are not applicable to RCs

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Modeling Process Update:
2021 Modeling Schedule Available

2021 Schedules for Full Network Model Database Release

The California ISO's Full Network Model (FNM) implementation process has specific critical dates to meet in order to include corresponding changes to the Full Network Model. The FNM database release are listed in Table 1.

Table 1 - Model Schedule

FNM Label	Customer Model Document Submission Deadline	ISO Publishes Final Scope	Production Deployment
21M2_DB102	10/23/2020	11/13/2020	**Week of 2/1/2021**
21M3_DB103	12/17/2020	1/7/2021	**Week of 3/15/2021**
21M4_DB104	2/4/2021	2/25/2021	**Week of 4/26/2021**
21M6_DB105	3/11/2021	4/1/2021	**Week of 6/7/2021**
21M7_DB106	4/15/2021	5/6/2021	**Week of 7/19/2021**
21M8_DB107	5/27/2021	6/17/2021	**Week of 8/23/2021**
21M10_DB108	7/8/2021	7/29/2021	**Week of 10/4/2021**
21M11_DB109	8/19/2021	9/9/2021	**Week of 11/15/2021**

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Power System Restoration Working Group

Tricia Johnstone
Director, Operations Compliance and Controls

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HANA Customer Partnership Group

Aung Oo
Manager, Reliability and Market Operations Engineering

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HANA Environment Status Reports

- Reports will be posted weekly every Monday under RC portal

  1. HANA_SE_BASE_yyyymmdd_to_yyyymmdd.csv
  2. HANA_SA_BASE_yyyymmdd_to_yyyymmdd.csv
  3. HANA_SE_SUBSCRIBER_yyyymmdd_to_yyyymmdd.csv
  4. HANA_SA_SUBSCRIBER_yyyymmdd_to_yyyymmdd.csv

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HANA Environment Status Reports (Cont.)

- **PROCESS COMPLETE PT/MT/GMT**
  - *The time stamps represent where System Operator can view the result of analysis in Pacific Time/Mountain Time/Greenwich Mean Time*

- **PROCESS**
  - *This column shows either SE for State Estimator or SA for Security Analysis, otherwise known as Contingency Analysis*

- **DATA SOURCE**
  - *This column shows either BASE for HANA Base environment or SUBSCRIVER for HANA Study Subscriber environment*

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HANA Environment Status Reports (Cont.)

- The time stamps from reports are when the Operators can view the results
- There's time delay between HANA UI time stamps and the time when the Operators can view the results
- This is due to HANA application internal processing time

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HANA Environment Status Reports (Cont.)

PROCESS_COMPLETE_GMT	PROCESS_TYPE	DATA_SOURCE
7/14/2020 18:24	SE	SUBSCRIBER
7/14/2020 18:28	SE	SUBSCRIBER
7/14/2020 18:31	SE	SUBSCRIBER
7/14/2020 18:35	SE	SUBSCRIBER
7/14/2020 18:38	SE	SUBSCRIBER
7/14/2020 18:42	SE	SUBSCRIBER
7/14/2020 18:45	SE	SUBSCRIBER
7/14/2020 18:49	SE	SUBSCRIBER
7/14/2020 18:53	SE	SUBSCRIBER

Local Time = 11:38

RT_SE   **RT_SA**   **Admin**

Operator RT Monitor | RT System Summaries | Input | Output | Tools

RT_SE > Operator RT Monitor

Company [ALL] ✓ Zone [ALL] ✓   **Apply**   Re

Application Status		Data Date 07/14/2020 11:36		
	Last Solution Date/Time	Last Execution Status Time	RTSC	
State Estimator	07/14/2020 11:37	DONE 07/14/2020 11:37 SE Converged		SE
Security Analysis	07/14/2020 11:36	DONE 07/14/2020 11:39 SA Non-Converged		26
Completion Status VALID		SA Alarm Timer		

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HANA Environment Status Reports (Cont.)

- HANA Base can be used as back up of HANA SUBSCRIBER
- HANA Study Download can be used for both HANA Base and HANA Subscribers

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HANA Environment Status Reports (Cont.)

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HANA Environment Status Reports (Cont.)

- Example of the report

PROCESS_COMPLETE_PACIFIC	PROCESS_COMPLETE_MOUNTAIN	PROCESS_COMPLETE_GMT	PROCESS	DATA_SOURCE
9/8/2020 0:00	9/8/2020 1:00	9/8/2020 7:00	SE	SUBSCRIBER
9/8/2020 0:03	9/8/2020 1:03	9/8/2020 7:03	SE	SUBSCRIBER
9/8/2020 0:07	9/8/2020 1:07	9/8/2020 7:07	SE	SUBSCRIBER
9/8/2020 0:10	9/8/2020 1:10	9/8/2020 7:10	SE	SUBSCRIBER
9/8/2020 0:14	9/8/2020 1:14	9/8/2020 7:14	SE	SUBSCRIBER
9/8/2020 0:18	9/8/2020 1:18	9/8/2020 7:18	SE	SUBSCRIBER
9/8/2020 0:21	9/8/2020 1:21	9/8/2020 7:21	SE	SUBSCRIBER
9/8/2020 0:25	9/8/2020 1:25	9/8/2020 7:25	SE	SUBSCRIBER
9/8/2020 0:28	9/8/2020 1:28	9/8/2020 7:28	SE	SUBSCRIBER
9/8/2020 0:32	9/8/2020 1:32	9/8/2020 7:32	SE	SUBSCRIBER
9/8/2020 0:35	9/8/2020 1:35	9/8/2020 7:35	SE	SUBSCRIBER
9/8/2020 0:39	9/8/2020 1:39	9/8/2020 7:39	SE	SUBSCRIBER
9/8/2020 0:42	9/8/2020 1:42	9/8/2020 7:42	SE	SUBSCRIBER

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Operations Planning Working Group

Rachel Lucas
Operations Compliance Analyst

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PRC-012: New RAS Review Process

- RC West is coordinating with other RCs through WECC RASRS

- Interim process of submission submit to ISORC@caiso.com with Subject "PRC-012 RAS submission" one month prior to WECC RASRS

- RC West developed customer task force to discuss and review comments regarding proposed procedures, effective 1/1/2021
  - RC0690: Proposed Process
  - RC0690A: RAS Review Checklist
  - RC0690B: Process Flow
  - RC0690C: Corrective Action Plans & Results Checklist

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Proposed Process – RAS Database

- PRC-012-2 R9 requires RC to update RAS database:
  - RC West will maintain RAS database starting 1/1/21 implementation
  - Scope: RC West footprint and seams

- Planning to make available via RC Portal
  - Most RAS entities are RC West customers
  - Access to RC portal is available for RC West customers and neighboring RCs
  - Other RAS entities may gain access via TOPs or neighboring RCs

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Proposed Process – Submissions (RC0690)

- RAS entities within RC West footprint will submit documentation to RC West Portal for review and post for approval prior to:
  - Initial installation and commissioning; (RC0690A)
  - Being functionally modified; (RC0690A)
  - Removal of a scheme from service; (RC0690A)
  - In the event of failure of a scheme for which functional modifications will be necessary; (RC0690C)
  - Corrective action plans. (RC0690C)
- Planning Coordinators should communicate periodic review results to RC West by submitting to RC Portal
- WECC RASRS will allow review quarterly.
- RC West will notify customer of approval or additional actions needed based on agreed timeline.
- RC West will modify database accordingly.

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Decisional Item: PRC-012 approval for RC0690 and attachments

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Training Working Group

Tami Elliott
Manager, SAT Development and Administration

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Future Agenda Items

- Determine agenda topics for next public session on November 10, 2020 (webinar)

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Open for Public Comments

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Public Session Adjourned

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Reference: RC Issue Support Structure

RC Working Groups

1. Data Exchange	2. HANA	3. Ops Planning	4. Real Time Ops	5. Training	6.Emergency Prep.

Liaisons:

Rachel Lucas
Tricia Johnstone

Aung Oo
Rada Ristanovic

Dede Subakti

Tim Beach

Tami Elliott

Tricia Johnstone

CIDI System

Data Exchange Queue	Hana Queue	Ops Planning Queue	Real Time Ops Queue	Training Queue	Emergency Prep. Queue

- Each Liaison manages their WG queue

General pool of all other CIDI tickets (EIM, SCs, General RC, etc.)

Phone Calls

Email

Meeting Action Items

Customer Submitted

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