Reliability Coordinator West Oversight Committee

Public Meeting

April 17, 2019

1:00 – 2:30 p.m. PDT

Agenda

Time:	Topic:	Presenter:
1:00 – 1:05	Welcome/agenda	Kristina Osborne – CAISO
1:05 – 1:10	Roll call	Steve Cobb – Vice Chair
1:10 – 1:25	Update: RC Operations • RC-RC shadow operations • WECC recommended procedure changes • Seams	Tim Beach - CAISO
1:25 – 1:35	Update: RC Certification	Nancy Traweek - CAISO
1:35 – 1:45	Update: Customer Onboarding	Joanne Alai – CAISO
1:45 – 1:55	Update: Technology	Khaled Abdul-Rahman - CAISO
1:55 – 2:05	Update: Hosted Advanced Network Applications (HANA)	Gina Wansor - CAISO
2:05 – 2:10	Decision: Public Meeting Notice and Posting Guidelines	Phil Pettingill - CAISO
2:10 – 2:15	Future agenda items	Steve Cobb – Vice Chair
2:15 – 2:25	Public comment	
2:25	Adjourn	

Update: RC Operations
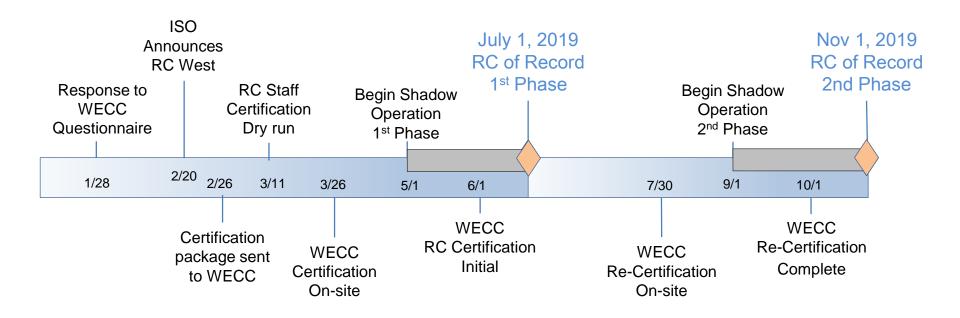
Tim Beach
Director Reliability Coordination, System Operations

Shadow Operations

California ISO

Reliability Coordinator West Implementation Timeline:

Response to WECC Questionnaire — 1/28

ISO Announces RC West — 2/20

Certification package sent to WECC — 2/26

RC Staff Certification Dry run — 3/11

WECC Certification On-site — 3/26

Begin Shadow Operation 1st Phase — 5/1

WECC RC Certification Initial — 6/1

July 1, 2019 RC of Record 1st Phase

WECC Re-Certification On-site — 7/30

Begin Shadow Operation 2nd Phase — 9/1

WECC Re-Certification Complete — 10/1

Nov 1, 2019 RC of Record 2nd Phase

Shadow Operations Task Force

- RC to RC Team Tasks
  - USF/PST coordination Operating Guide
    - Simulation drill with Peak
    - Will need to be revised for Nov 1st for SPP RC
  - Reviewed and approved Daily Conference call guide
  - RC transition communication plan
  - RC-RC Messaging Guideline
  - Operation Procedure Matrix
  - RC-RC Drills
  - Developing external situational awareness narrative
    - Incorporates alarm schema's, contingency and monitored elements
- BA/TOP
  - Messaging Guideline
  - BA/TOP Shadow Ops expectations guide
  - Training during with California entities

Procedures Update

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RT Procedure Updates (Post On-site Cert Team Visit)

Procedure	Details
RC0110 Communications Protocols	• Clarified requirement for all Operating Instructions to be in English and for rescinding/cancelling an Operating Instruction if no longer needed.
RC0130 Notification Requirements for Real-Time Events	• Clarified requirements for notifying RC for Forced Outages that reduce RSG deliverability. • Added requirements to notify when BA denies a Curtailment (per INT-006-4), and when a multiple contingency becomes credible (per SOL Methodology).
RC0310 Mitigating SOL and IROL Exceedances	• Clarified example in on *Actual Thermal Limit Exceedances.* • Clarified language on Insecure Operating States. • Added new section for addressing changes to RAS status. • Updated references to *WECC Unscheduled Flow Reduction Guideline* (retired).
RC0330 Coordinating with Neighboring RCs	• Numerous revisions to reflect RC-RC agreements which were finalized after the procedure was written. • Added requirements to adhere to 3-Part Communication protocols for RC-RC communications.
RC0410 System Emergencies	• Added requirement to notify market participants when declaring EEA
RC0530 Communications Systems and Testing	• Added clarification to RC responsibility to ensure testing of communications systems.

Continued

Procedure	Details
RC9120 Oregon Export IROL	• Corrected minor error in Interface Definition table for the Hemingway-Summer Lake 500kV line (direction).
Several Procedures (RC0210, RC0220, RC0310, RC0410, RC0460)	• Clarified language related to RC notifications via RCIS, since RMT and GMS will be used for certain RC-RC communications.

- Additional upcoming procedures modifications

  - RC0470 Loss of Control Center functionality: Recommendation from Certification Team to clarify thresholds for evacuation of control center

  - RC0420 Event Reporting: Updated NERC EOP-004 on reporting IROL violations.

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Seams

- – Address by use of Operating Guides specific to the issue and impacted parties

- – Initial focus on IROLs

- – Surveyed BA/TOP to identify seams SOL issues
  - Met with NWE and WAPA Upper Great Plains
  - Southwest
  - Northwest

- – Restoration coordination
  - Met with CA, SW and NW entities to review plans
  - Planning joint drills

Update: RC Certification

Nancy Traweek
Executive Director, System Operations

Certification Process followed the NERC Rules of Procedure and included all Standards Applicable to Reliability Coordination

COM-001-3	EOP-004-4	IRO-009-2
COM-002-4	EOP-006-3	IRO-010-2
CIP-002-5.1a	EOP-008-2	IRO-014-3
CIP-003-6	EOP-010-1	IRO-017-1
CIP-004-6	EOP-011-1	IRO-018-1(i)
CIP-005-5	FAC-011-3	MOD-033-1
CIP-006-6	FAC-014-2	NUC-001-3
CIP-007-6	IRO-001-4	PER-003-1
CIP-008-5	IRO-002-5	PER-004-2
CIP-009-6	IRO-006-5	PER-005-2
CIP-010-2	IRO-006-WECC-2	PRC-002-2
CIP-011-2	IRO-008-2	

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Preparation

- Responses to 125 Question – Per Certification Questionnaire
- Submitted 200 pieces of evidence
  - Standards 35 total – CIP = 10, OPS = 25 (7 new)
  - Requirements 377 total – CIP = 160, OPS = 217
  - 45 RC Operating Procedures, Operating Guides, Methodologies, Processes
- Delivery and Training on Expanded Tools
- Pre-Certification Dry Runs

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Certification Team – Industry Representation

O&P Off-Site Review & On-Site Visit	1 – TOP w/in CAISO area 4 – BA / TOP w/in RC West area 4 – BA, TOP, RC outside RC West area 2 – WECC 2 – Peak 2 – NERC
CIP (WECC Staff) Off-Site Review & Webinar	11 – WECC Staff
Observers	2 – FERC 1 – NRDC 1 – WIRAB 3 – WECC

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Certification Team Feedback – Very Positive

- Qualification Dashboard in Vision
- Website for TOPs to upload their OPAs allows them to indicate who is impacted for quick reference
- Collaboration with the member utilities and new RC
- RC operators leading the discussions
- Operators helped build the process and procedures
- Coordination with IT and shift manager regarding update on patch management every morning
- Displays for nuclear plants interface requirements were well organized and prepared
- Developing additional tools and processes for their operators
- Incorporating best practices from the assurance activity

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Bucketed 1,2,3 items

- 0 – Bucket 1 Items

  There were no issues the Certification Team found that would prevent a recommendation of Certification.

- 3 – Bucket 2 Items (closed prior to going operations)
  - ✓ Additional Training Evidence for 4 RC tasks
  - ✓ Update Data Submission Check Sheet when HHWP and IID have completed successful data transfers
  - ✓ Update the language in RC0310v1.1 Section 3.9 to address that an unidentified IROL could exist.
  - RC West has summited evidence to close out all Bucket 2 items to WECC

- 7 – Bucket 3 Items (for consideration – not part of the final report)
  - Majority are related to documentation clarity and will be address
  - 2 best practice items – ISO will look at these as a future enhancement
    - Second provider for a more redundant and reliable communication for ICCP data
    - Link to the job aids on the EMS screen
  - 1 CIP related

Update: Customer Onboarding

Joanne Alai
RC Onboarding Project Manager

RC Onboarding is on track

Readiness Criteria	Readiness Category	Timeframe	July Customers		November Customers		Comment
			Status	% complete	Status	% complete	
1	Agreements / Approvals	1 Contract Readiness	Complete	100%	Complete	100%	All 39 RC customers have signed RCSA.
2	Network Model Integration	2 Testing Preparation	Complete	100%	Caution	52%	• All July customers have updated models in place. • Final model deployment for some November customers for data validation by July 1.
3	Operating Procedures	2 Testing Preparation	Complete	100%	On Track	90%	
4	Operating Guides	2 Testing Preparation	Complete	100%	On Track	50%	
5	Messaging	3 Customer Testing	On Track	80%	On Track		Testing continues through 4/25 for July customers
6	RC Customer Integration	3 Customer Testing	On Track	80%	On Track		July customer testing • Access verification 100% • Data submissions 100% • Data validation continues through 4/25
7	Shadow Operations	4 Shadow Operations	On Track		On Track		• Shadow Operations begins 5/1 • Final Transition plan due 4/16
8	Executive Statement	4 Shadow Operations	On Track		On Track		

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RC Shadow Operations Customer Transition

- Shadow Operations begins 5/1/19 at 5:00 AM.

- Draft transition plan provided for Shadow Operations. Customer prerequisites include:
  - Complete Data Validation with CAISO and Day in the Life testing,
  - Provision Shadow Operations user to access CAISO applications (Stage),
  - Ensure technical redirects to Shadow Operations environment (Stage) and verify connectivity.

- RC customers are expected to submit data as if they are in production.

- Operations will monitor reports to ensure matches with Peak RC.

- Shadow Operations will be supported each day through 6/30/19.
  - RC team will be on 24x7 shifts.
  - Technology and other teams will provide onsite support for an extended day and on-call overnight.

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July Customer Data Validation Progress

RC Customer Onboarding - Data Validation Progress

July Customers

4/15/2019

RC Customer (July)	IDs	Generation Forecast (RCBSAP)	Load Forecast (ALFS)	Outages (webOMS)
Hetch Hetchy	CCSF or HHWP	NA	NA	4/18/2019
PG&E	PCG	NA	NA	Complete
SCE	SCE	NA	NA	In Progress
SDGE	SDGE	NA	NA	Complete
Silicon Valley	SNCL	NA	NA	4/16/2019
Valley Electric Association	VEA	NA	NA	Complete
Arizona Electric Power Cooperative	AEPCO	NA	NA	4/17/2019
Trans Bay Cable	TBC	NA	NA	NA
CENACE	CFE or CEN	In Progress	Complete	Complete
SMUD	SMUD	Complete	Complete	In Progress
BANC	BANC	Complete	Complete	In Progress
WAPA-SN Region	WASN	NA	NA	In Progress
Modesto Irrigation District	MID	NA	NA	In Progress
LADWP	LDWP	4/16/2019	4/16/2019	4/16/2019
Imperial Irrigation District	IID	4/17/2019	4/17/2019	4/17/2019
Turlock Irrigation District	TIDC	4/16/2019	4/16/2019	4/16/2019
		33%	50%	25%

Data Validation continues through 4/25/19
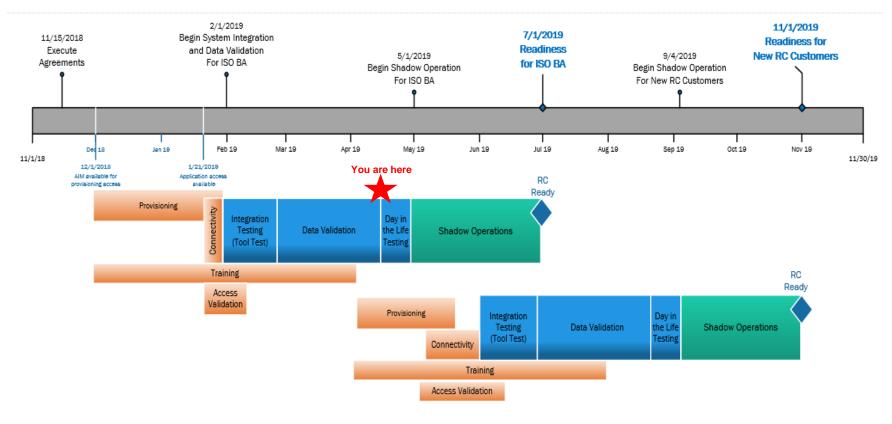
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Update: Technology

Khaled Abdul-Rahman
Executive Director, Power Systems & Smart Grid Technology Development

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RC Participant Onboarding Timeline

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ISO PUBLIC

The RC services implementation team is working diligently to meet critical milestones.

- Technology is on track for 7/1/19:
    - RC successfully completed all the critical path milestones of RC certification on 3/25/19.
    - Functional and performance testing are scheduled for completion on 4/26/19 and start shadow operations on 5/1/19.
    - Technology reports being on track for 7/1/19 activation.
- Technology is on track for 11/1/19, with one caution:
    - System development and testing is on track for all remaining RC functionality.
    - RC to RC integration activities are underway.
    - The full network model schedule is flagged as caution.

The full network model schedule has changed, impacting three RC customers.

- The Q2'19 model was at risk of being deployed to production later than scheduled.
- Integration testing is scheduled to begin on 6/1/19.
- An updated Q2'19* network model CIM static file export with updates for BPA, SRP and SCL will be available 6/14/2019.
- The updated Q2'19* network model will be available in the non-production environment on 6/27/19 for all November RC customers to allow for data validation to start on 7/1/2019, as planned.

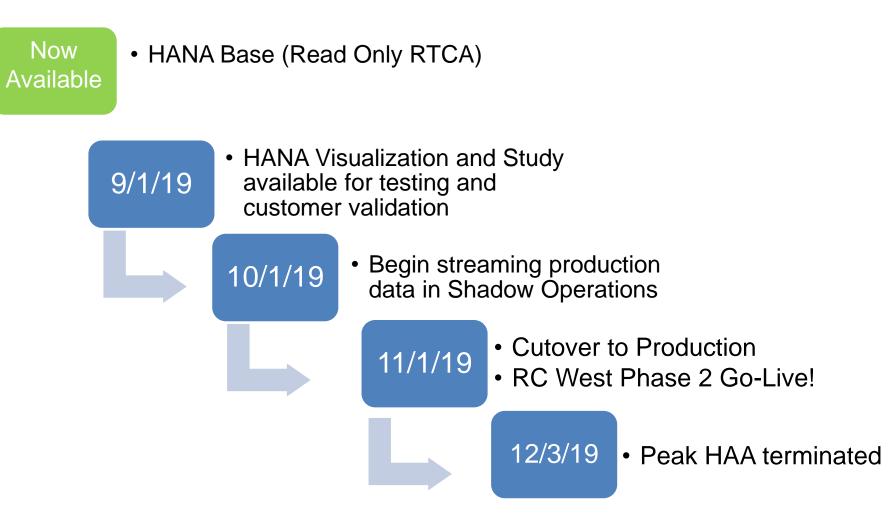|	Production	Non-Production (MAP-Stage)
Q2'19	5/23/19	5/30/19
Updated Q2'19* model for BPA, SRP, and SCL	7/11/19	6/27/19 (BPA,SRP, SCL)
Q3'19	8/22/19	8/27/19

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Update: Hosted Advanced Network Application (HANA)

Gina Wansor
Sr. Client Representative, Customer Experience

HANA Timeline Review

Now Available
- HANA Base (Read Only RTCA)

9/1/19
- HANA Visualization and Study available for testing and customer validation

10/1/19
- Begin streaming production data in Shadow Operations

11/1/19
- Cutover to Production
- RC West Phase 2 Go-Live!

12/3/19
- Peak HAA terminated

HANA Training Resources

- Training
  - HANA Webinar (HANA Base Training in May 2019)
  - HANA Computer Based Training and Videos (May 2019)
  - Onsite training (Train the Trainer format in August 2019)

- In Progress
  - Computer Based Training and How To Videos (May/June 2019)
    - Will include videos on running a power flow and contingency analysis
  - HANA Base User Guide (May 2019)

Decision: Public Meeting Notice and Posting Guideline

Phil Pettingill
Director, Regional Integration

Decision: Public Meeting Notice and Posting Guideline

- During March 14th RC West Oversight Committee meeting, the Chair/Vice Chair requested the public meeting notice and posting guideline be documented and brought back for a vote prior to posting publicly
- April 3rd, the proposed guidelines were provided to Oversight Committee members
- No comments were received

Task	Publicly notice the meeting / call	Agenda topics proposed by public	Post and publicly notice agenda	Post meeting documents	Post decisions* / meeting recording
Timeline	At least 3 weeks prior to in person meeting / 1 week prior to call	2 weeks prior to the meeting	At least 1 week prior to meeting	1 week prior to meeting for approval items / 2 business days prior to meeting for non-approval items	After meeting, 2 business days for decisions / 3-5 days for recording

Future Agenda Items

- Determine agenda topics for next public session on May 21, 2019

Note: Stakeholders can submit agenda topic suggestions for upcoming meetings. Submit to https://www.surveymonkey.com/r/RCWOCAgenda at least two weeks prior to the next public meeting.
Topics may or may not be discussed.

Public Comment