



**REGIONAL ENTITY TRUSTEES MEETING
JANUARY 30, 2017
Dallas, TX
A G E N D A
8:00 a.m. – 3:00 p.m.**

1. Call to Order/Introductions.....Dave Christiano
2. Antitrust GuidelinesDave Christiano
3. Approval of Meeting Minutes – 10/24/2016Dave Christiano
4. Accept 2016 Goals and Metrics Performance * *Action item*Ron Ciesiel
5. Approve 2017 Goals and Metrics * *Action item*Ron Ciesiel
6. Approve SPP RE Strategic Plan 2017-2020 * *Action item*.....Ron Ciesiel
7. NERC Operating Committee Jim Useldinger
8. SPP RE Merit PoolRon Ciesiel
9. 2016 Annual Report.....Ron Ciesiel
10. CIP Update..... Kevin Perry
11. Trustee Meeting Policy Discussion.....Ron Ciesiel
12. Quarterly System Events & FAC Update.....Alan Wahlstrom
13. Enforcement ReportJoe Gertsch
14. General Manager’s ReportRon Ciesiel
15. Financial Report.....Debbie Currie
16. Outreach ActivityEmily Pennel
17. NERC COMMITTEE REPORTS – Comments or Questions
 - a. Planning.....Noman Williams
 - b. Critical Infrastructure Protection.....Eric Ervin
 - c. Compliance and Certification Committee Jennifer Flandermeyer
18. New Action Items..... Emily Pennel



19. Future MeetingsDave Christiano
Discuss June Budget Meeting (face-to-face or phone, date)

April 24, 2017, Tulsa
TBD June 2017- Little Rock-Budget Meeting
July 24, 2017, Denver
October 30, 2017, Little Rock

The meeting will be followed by a closed Executive Session for the SPP RE Trustees and RE General Manager.

SPP Regional Entity Antitrust Guidelines

It is SPP RE's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or which might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.



**Southwest Power Pool
REGIONAL ENTITY TRUSTEES MEETING**

Oct. 24, 2016

**Southwest Power Pool
Little Rock, Arkansas**

A G E N D A

8:00 a.m. – 3:00 p.m. CST

Meeting Materials

- 1. **Call to Order/Introductions****Dave Christiano**
Chairman Christiano called the meeting to order at 8:02 a.m.
- 2. **Antitrust Guidelines**.....**Dave Christiano**
Attendees reviewed the guidelines.
- 3. **Approval of Meeting Minutes – July 25, 2016****Dave Christiano**
The Trustees approved the minutes with no changes.
- 4. **Winter Reliability Assessment Overview** **Lanny Nickell**
The seasonal assessments are getting smaller, per NERC’s instructions. The forecasted reserve margin is 60% for the 2016-2017 winter season. Variable resource integration continues to be an active issue. There are no identified reliability concerns for this winter. We expect to set new wind penetration record this winter. The Trustees unanimously endorsed the assessment.
- 5. **NERC Compliance and Certification Committee****Jennifer Flandermeyer**
The CCC is on track to complete all items in the 2016 Work Plan. The 2017 Work Plan was aligned with completion of Section 215 responsibilities and the ERO Strategic Plan; it will be presented to NERC Board of Trustees for approval in the February 2017 meeting.

It was discussed at the NERC board meeting that the ERO stakeholder survey showed regional inconsistencies. The NERC Board wants to determine what kind of inconsistencies; the CCC had a good discussion on this and the discussion will continue. The CCC is collaborating with NERC staff and the Standards Committee to do quality reviews of RSAWS.

Jennifer thanked SPP’s CCC members who represent various sectors: Ashley Stringer, John Rhea, and Michael Deloach. SPP RE’s Jim Williams is active in support.

- 6. **SPP RE Risk Assessment****Ron Ciesiel**
The NERC ERO Enterprise Management Group identified and ranked 15 risks in April 2016. The risks were tied to NERC’s strategic goals. Each region identified its organization’s internal controls for each risk and established a Regional Risk Register. The conclusion we came to is that SPP RE’s internal controls are effective for reducing 14 of 15 risks. One risk was not applicable to SPP RE. We now have a roadmap for continuous improvement opportunities for SPP RE. We will send results to NERC in Nov. Trustee Maher suggested we consider looking at regional risks, too. The Trustees unanimously endorsed the risk assessment.

7. SPP RE 2016 Trustee Self-Assessment.....Dave Christiano

Of note on the “major accomplishments” list was managing governance issues related to the SPP RTO’s expansion without the SPP RE footprint changing. The SPP Corporate Governance committee created a sub-group that worked to find two highly qualified people who were elected as new Trustees. CIP V5 is a continuing issue, as are relay misoperations. The Oct. 26 Misoperations Summit is the first of its kind. Hopefully the FAC alert will be completed by the end of 2016. The Trustees endorsed the assessment to be submitted to the SPP Corporate Governance Committee.

8. 2016 Stakeholder Satisfaction Survey Results.....Ron Ciesiel

SPP RE issued the 2016 Stakeholder Satisfaction Survey in Sept. to the 86 Primary Compliance Contacts registered in webCDMS. The survey had a 64% response rate. When asked how well SPP RE’s programs and services meet expectations on a scale of 1 to 5, with 5 being the highest, respondents rated all with scores in the *meets expectations* range. When asked to rate employees’ customer service ability or programs’ responsiveness to needs, respondents rated all with scores between *average* and *excellent*.

Of the 21 respondents who interact with other Regional Entities, none rated SPP *much worse*, 5% rated SPP RE *somewhat worse*, 30% rated SPP RE *about the same*, 45% rated SPP RE *somewhat better*, and 20% rated SPP RE *much better*.

Overall, respondents rated SPP RE with a score of 4, or *good*. Staff is developing an action plan to address concerns, which will be shared at the next Trustees meeting. Trustee Whitley noted importance of following up on the survey results.

9. 2017 Implementation Plan..... Jim Williams

Jim Williams reviewed the 2017 ERO Risk Elements and process, SPP RE Risk Elements and Implementation Plan, Registered Entity Risk Assessment process, and audit schedules.

10. CIP Update Kevin Perry

Kevin Perry discussed NERC CIP Standard Drafting Team activities, revisions to the CIP standards, and FERC Order 829 requiring development of a standard to address supply chain risk management. SPP RE has completed three on-site audits since July 1. The last audit is scheduled for November. We still don’t know which audit FERC will lead.

Kevin researched and shared CIP V5/V6 violations since July 1 for all of the REs. REs are just now beginning to ramp up their audit activities. Of the SPP RE violations, 44% were self-reported.

Responding to a question from SPP Board Chair Jim Eckelberger, Kevin noted that SPP RE’s CIP outreach and readiness assessments definitely improved SPP Registered Entity performance and even led to some companies going “above and beyond” to meet the standard.

11. 3 Q Event AnalysisAlan Wahlstrom

SPP RE Registered Entities have spent approximately \$18,000,000 to assess lines under the FAC report. SPP Operations Engineer Mike Nugent discussed an oscillation event from Feb 2016. Fred Meyer noted it is alarming that we still don’t know the root cause of this event. Alan Wahlstrom noted this event highlights the need to bring more PMUs into our region. The RTO synchrophasor strike team is working on this issue. Trustee Whitley noted we need to look at processes to stay on top of generation controls.

Kevin Perry noted that if you aren’t using data from synchrophasor units for real time operations, they are not BES Cyber Assets so not applicable to CIP V5 standards.

12. Enforcement Report Joe Gertsch

We have a caseload of 164 active violations. This number will increase significantly due to the recent incoming violations; most of these will be handled via Compliance Exception. About 80% of SPP RE’s compliance issues are being processed via Compliance Exception or FFT, which are for minimal risk. Joe Gertsch reviewed two years of mitigation plan data. There is a relatively new NERC requirement to include root cause in a mitigation plan.

Joe encourages everyone to submit mitigation plans as soon as possible to start the “safe harbor” clock.

13. General Manager’s Report/Compliance Report Ron Ciesiel

We had a serious uptick in violations in second quarter resulting from the GO/TO self-certification. Most of the issues were at wind farms. We have completed four Internal Control Assessments which resulted in removing some requirements from auditor’s review and reducing sample size.

14. SPP RE Third Quarter Financial Report Ron Ciesiel

FERC approved all RE and NERC budgets. We are running under budget by 7%. The evidence we receive today is vastly improved over what it was in the past; this allows us to cut back on the amount of on-site work. The financial underrun goes back into our assessments for next year.

15. Staff Goals and Metrics Ron Ciesiel

We are on track with the metrics overall, though there are a few we will not meet.

16. Outreach Activity Emily Pennel

Emily reviewed the 2016 meeting dates. She encouraged stakeholders to change their online meeting registration if they cannot attend a meeting or need to change from in-person to webex. SPP has been incurring significant costs for meeting no-shows.

17. NERC COMMITTEE REPORTS – Comments or Questions

- a. Planning Committee Noman Williams
- b. NERC Operating Committee Report Jim Useldinger
- c. System Protection and Control Open
- d. Critical Infrastructure Protection Committee Eric Ervin

18. Existing and New Action Items Emily Pennel

Action Item: Better memorialize SPP RE’s interface with the RTO in how we are billed, confidentiality, etc.

19. Future Meetings Dave Christiano

January 30, 2017- Dallas, TX

April 24, 2017- Tulsa, OK

July 24, 2017 - Denver

Oct. 30, 2017 - Little Rock

The meeting was adjourned at 2:44 pm.

Respectfully,
Emily Pennel, SPP RE Staff Secretary

REGIONAL ENTITY TRUSTEE MEETING

October 24, 2016

ATTENDANCE LIST

NAME	ORGANIZATION
Bo Jones	Westar Energy
Mike Hughes	SPP RE
Joe Geltsch	SPP RE
Jennifer Flandermeyer	KCPL
TRACEY STEWART	SNPA
Jim Williams	SPP RE
JULIAN BRIX	SPP DIRECTOR
GRAHAM EDWARDS	SPP Director
DAVID OSBURN	OMPA
Fred Meyer	The Empire District Electric Company
BRENT BAKER	EMPIRE DISTRICT ELEC
JEFF KNOTTEK	SPRM
John Allen	SPRM
Chris Lang	GSEC
John Olsen	Westar
Andrea Danzette	SPP RE
Kevin Hopper	SCMCN
BARY WARREN	SCMCN/GREED/LONCE
Alan Wahlstrom	SPP RE
Mike Wise	GSEC

Jori Spence	MISO
Joe Gardner	MISO
Jeff Rooker	SPP RE
Darrell Platt	FERC
Nomen Williams	SCMCA
Beth Emery	SCMCA
TRENT CARLSBACH	SCMCA
TOM WESTERMAN	Sunflower
Thomas Maldonado	Xcel Energy
Monica Evans	SPP RE
Emily Pennef	SPP RE
Terri Ryle	OGE
John D. Rhee	OGE
LANNY NICKELL	SPP
Michael Desselle	SPP
SEVEN B. LEWIS	SPP RE
Ron Cesiel	SPP RE
GERRY BURROWS	SPP RE
Dave Christiano	SPP RE
MARK MATHER	SPP RE
Steve Whitley	SPP RE
Jim Eckelberry	SPP Director
Michael Nugent	SPP Operations
Thomas Teofelhu	SPP RE
Carl Stilly	SPP RTD

TELECONFERENCE ATTENDEES

Debbie Currie

SPP RE

Mike Murregg

Jim Useldinger

Jason Mazisian

Robert Pick

NDDP

Louis Guidry

Cleco

Paul Mehlhaff

Michelle Corley

2016 Metrics Performance

SPP RE Trustees

Jan. 30, 2017

Dallas, TX

Ron Ciesiel

SPP RE General Manager

2016 Goals and Metrics Performance

Metric	Perf.
1. Maintain caseload of no more than one year	120%
2. Accept or reject Mitigation Plans within 30 days of submission by Registered Entity or within 10 days of resubmission.	83.33%
3. Complete Mitigation Plan completion reviews within 20 days of Registered Entity notification of completion	127.05%
4. Process pre-2015 violations and send to NERC by 11/1/16	0%
5. Compliance staff sending the possible violations to Enforcement	126.00%
6. Complete documentation close-out of all violations within 45 days of issuance of the NCEA	100%
7. Publish non-public off-site audit report to NERC (45 days)	120%

8. Publish non-public on-site audit report to NERC (65 days)	120%
9. Percentage of Entities with a completed IRA	100 %
10. Publish internally completed assessment of Self-Certification/periodic data submittals	100%
11. Process incoming Possible Violations to NERC through webCDMS in 5 business days or less	100%
12. Control out-of-pocket expenses for on-site/off-site audits (contractor billings and travel)	150%
13. Increase outreach/assessment to maintain or improve protective relay misoperations success rate for 4Q 2015-3Q 2016	94.50%
14. Assure proper Cause Codes can be verified from Event Analysis Reports issued by SPP RE Registered Entities	100.00%
15. Complete 100% of outreach production goals with a stakeholder satisfaction rating ≥ 3	130%

ACTUAL WEIGHTED TOTAL

104.18%



2017 Goals and Metrics

SPP RE Trustees

Jan. 30, 2017

Dallas, TX

Ron Ciesiel

SPP RE General Manager

2017 Goals and Metrics

Metric	Weight
1. Maintain caseload of no more than one year	10%
2. Accept or reject Mitigation Plans within 30 days of submission/10 days of resubmission	7.5%
3. Complete review of Mitigation Plan completion within 20 days of Registered Entity notification of completion	7.5%
4. Process pre-2016 noncompliance issues and send to NERC by 11/6/17	10%
5. Complete triage of incoming potential noncompliance issues within 30 days of issuance of Notice of Preliminary Screen (NPS) or Engagement Report, as applicable.	7.5%
6. Complete documentation close-out of all violations within 45 days of issuance of NCEA	5%
7. Publish non-public off-site audit report to NERC in less than 45 days	7.5%

8. Publish non-public on-site audit report to NERC in less than 65 days	7.5%
9. Publish internally completed assessment of Self-Certification/ periodic data submittals	7.5%
10. Perform preliminary screening of potential noncompliance issues in webCDMS in 5 business days or less	2.5%
11. Control out-of-pocket expenses for compliance oversight (contractor billings and travel)	12.5%
12. Conduct outreach on protection system misoperations	5%
13. Outreach Production Goals	10%
14. 2017 SPP RE Stakeholder Satisfaction Survey Results	N/A
<i>This metric adjustment adds a qualitative measure to all metrics.</i>	

2017 Staff Goals and Metrics

Draft 1/9/17 Clean

Each year, SPP RE establishes performance goals and metrics for SPP RE staff performance. The metrics are developed by staff and approved by the SPP RE Trustees.

Unless stated otherwise, references to “day” refers to a calendar day, not a business day. Furthermore, unless otherwise calculated, if the time period for determining metric performance extends beyond the end of the calendar year and specific performance has not yet been determined at the year end, the metric performance will be counted against the next calendar year.

1. Maintain a caseload of no more than one year

Objective: Maintain 2017 violation processing capability and efficiency to achieve a one-year caseload by 1/1/18.

As of 12/31/16, the SPP RE caseload¹ is 154 violations. To achieve the metric in 2017, SPP RE will send to NERC completed dispositions (i.e. Compliance Exceptions, Settlements, Notice of Confirmed Violations, Find Fix & Track, Spreadsheet Notice of Penalty, or Dismissals²) equivalent to 100% of the 12/31/16 Enforcement caseload.³

Measure: (Number of completed dispositions / (caseload on 12/31/16)) = percent caseload completed

Performance contribution	50%	100%	120%
Percent completed	90%	100%	120%

Weight: 10%

Comments: This metric is aligned with and directly supports the caseload inventory and average violation age targets identified in NERC’s *Compliance Monitoring and Enforcement Oversight Plan*, December 2016.

¹ The caseload includes Multi-Regional Registered Entity (MRRE) violations notwithstanding whether SPP RE is the lead region.

² The number of dismissals shall include those dismissals not requiring NERC approval but approved by the SPP RE Sanction Review Team.

³ The violations sent to NERC will include MRRE violations sent by a lead region other than SPP RE.

2. Accept or reject Mitigation Plans within 30 days of submission/10 days of resubmission by the Registered Entity

Objective: To accept submitted Mitigation Plans (MP) in accordance with the Compliance Monitoring and Enforcement Program (CMEP) Section 6.5: *“Unless the time period is extended by the Compliance Enforcement Authority, it will complete its review of the Mitigation Plan, and will issue a written statement accepting or rejecting the Mitigation Plan, within thirty (30) days of receipt . . . The Compliance Enforcement Authority will notify the Registered Entity within ten (10) business days after receipt of a **revised** Mitigation Plan whether the Compliance Enforcement Authority will accept or reject the revised Mitigation Plan . . .”*

Measure: (number of MPs accepted or rejected in <= required number of days that are due in a month) / (number of MPs submitted/resubmitted due in the month) = percent MPs accepted/rejected <= required number of days each month⁴

accept/rejected days = (“submitted on date” in webCDMS) – (“accepted by region on” or “date of email requesting resubmission” in webCDMS)

To be able to calculate the metric in January 2018, the metric applies to all MPs submitted/resubmitted between 12/1/16 and 12/1/17.

The performance contribution cannot exceed 100%.

Performance Contribution ⁵	$\sum \text{Months where } 100\% \text{ MPs accepted/rejected } \leq \text{required number of days} / 12 * 100\%$
Goal	100% MPs accepted/rejected <= required number of days / month

Weight: 7.5 %

Comments:

- i. The weighting for this metric was increased from 5% to 7.5% to reflect the importance of the metric to processing violations and improved BPS reliability.
- ii. The Measure section was revised and a footnote was added to clarify that a failure to perform the required MP review is counted against the month the review is required to be completed and not against the month the MP is submitted.
- iii. This metric is aligned with CMEP requirements and directly supports the timely mitigation of all noncompliance, a 2017 Key Metric identified in the NERC *Compliance Monitoring and Enforcement Oversight Plan*, December 2016.

⁴ For example, if a MP is submitted in February 2017, the review of that MP is required to be completed in March 2017. Failure to perform the review results in a failure to meet the requirement for the month of March, not February.

⁵ The performance contribution is based on the number of months 100% of submitted/resubmitted MPs are accepted/rejected within the required number of days identified in the CMEP. For example, if Enforcement accepts/rejects 100% of the MPs initially submitted within 30 days and accepts/rejects 100% of the resubmitted MPs within 10 days for 11 of 12 months, then the performance contribution would equal $11/12 \times 100\%$ or 91.6%.

3. Complete review of mitigation completion within 20 days of Registered Entity notification of completion

Objective: To complete the review of MP and Mitigating Activity (MA) completions in accordance with SPP RE requirements.

Measure: Average MP/MA completion review days

Days = (“certification received by region”) – (“mitigation verified on” date in webCDMS)

To be able to calculate the metric in January 2018, the metric applies to all MP certifications submitted between 12/12/16 and 12/11/17.

Performance Contribution	50%	100%	150%
Avg. days for review of MP completion	30	20	10

Weight: 7.5%

Comments: i. The weighting for this metric was increased from 5% to 7.5% to reflect the importance of the metric to processing violations and improved BPS reliability.

ii. This metric directly supports the timely mitigation of all noncompliance, a 2017 Key Metric identified in the NERC *Compliance Monitoring and Enforcement Oversight Plan*, December 2016.

4. Process pre-2016⁶ noncompliance issues and send to NERC by 11/6/17

Objective: To ensure older violations are processed in a timely manner.

Measure: (number of pre-2016 violations in the Enforcement caseload)⁷ / (number of pre-2016 violation processed by 11/6/17.)⁸

The performance contribution cannot exceed 100%.

Performance contribution	50%	75%	100%
Percent sent to NERC	80%	90%	100%

Weight: 10%

⁶ As of 12/31/16, the SPP RE caseload contained thirty (30) pre-2016 noncompliance issues.

⁷ MRRE pre-2016 noncompliance issues for which SPP RE is not the lead are not included in the metric.

⁸ Compliance Exceptions, Find Fix Track (FFT), Spreadsheet NOP, and Full NOP violations must be filed with NERC. For dismissals, the Letter of Dismissal must be sent to the Registered Entity.

- Comments:**
- i. The due date associated with this metric was changed from November 1 to November 6 to align the date with NERC’s processing requirements.
 - ii. This metric directly supports the timely processing of all noncompliance, a 2017 Key Metric identified in the NERC *Compliance Monitoring and Enforcement Oversight Plan*, December 2016.
 - iii. A pre-2016 violation may be removed from this metric for cause if approved by the Sanction Review Team.

5. Complete triage of incoming potential noncompliance issues within 30 days of issuance of Notice of Preliminary Screen (NPS) or Engagement Report, as applicable.

Objective: To improve the speed and efficiency of the Enforcement process, SPP RE will determine the proposed disposition method for incoming potential noncompliance issues within 30 days of:

- The Compliance staff sending the NPS for potential noncompliance issues identified by self-reports and self-certifications; and
- The Compliance staff sending its final report to the Registered Entity for potential noncompliance issues identified during audits, spot checks, and investigations.

Measure: $\sum ((\text{date potential noncompliance triage complete}^9 - \text{date the NPS or Compliance Report was issued, as applicable}) / (\text{NPS or Compliance Reports issued between 12/1/16 and 12/1/17})) = \text{average days to complete potential noncompliance triage}$

Performance Contribution	50%	100%	150%
Average triage completion (days)	45	30	20

Weight: 7.5%

- Comments:**
- i. This metric was changed to require the triage for potential noncompliance issues discovered during an audit, spot check or investigation to be completed within 30 days of the issuance of the Compliance report in lieu of issuance of the NPS. The change was made to ensure sufficient information is available at the time of the triage meeting to adequately assess the scope and risk of potential noncompliance issues discovered during audits, spot checks and investigations.
 - ii. The average time period required for completion of the triage process was changed from 45 to 30 days to reflect the change related to potential noncompliance issues that are not self-identified. The average days for 50% and 150% Performance Contribution were reduced to 45 days and 20 days respectively to reflect the change.

⁹ Violation triage is normally complete when the Notice of Possible Violation is sent to the Registered Entity; a Letter of Dismissal is sent to the Registered Entity, a Preliminary Notice of Compliance Exception is sent to the Registered Entity, or initiation of discovery. In some cases, a formal triage meeting is unnecessary and an Enforcement email documenting the decision to forgo the meeting and a description of the basis may be used as a substitute for a triage meeting.

iii. This metric directly supports the timely processing of all noncompliance, a process improvement identified by NERC in the *NERC Compliance Monitoring and Enforcement Oversight Plan*, December 2016. Because the triage process is utilized to assess the risk of issues of noncompliance, this metric directly supports *Goal 2: Objective and Risk-informed Compliance Monitoring, Enforcement, and Organization Certification and Registration*, of the *ERO Enterprise Strategic Plan 2017-2020*.

6. Complete documentation close-out of all violations within 45 days of issuance of the Notice of Completion of Enforcement Action¹⁰

Objective: To ensure Enforcement case records and webCDMS are complete and include all documentation necessary to support the processing of a noncompliance issue.

Measure: Violation documentation close-out has successfully occurred when:

- (1) SPP RE File Clerk has synced a Notice of Completion of Enforcement Action (NCEA) to NERC, causing the violation status to shift to “closed” status within webCDMS;
- (2) Case Manager and MP Engineer review the Violation Case Record and the Case Record folder is complete;
- (3) Substantive and relevant violation documentation has been copied to the violation Enforcement Docket folder and the folder is complete;
- (4) Documents required for sync with NERC have been uploaded to webCDMS;
- (5) webCDMS data fields have been completed and verified as accurate;
- (6) Encrypted File Transfer (EFT) server files are deleted from the EFT server folder and copied to the appropriate Time Matters Pool (TMP) and Enforcement Docket folders; and
- (7) SPP RE File Clerk verifies staff completion of the close-out, signs the Certification of Case Record Close-Out and saves the Case Record and the certification to the Enforcement Docket folder.

Average number of days to completed violation documentation close-out following issuance of the NCEA or expiration of the NERC and FERC review period = (Total number of days to complete documentation close-out for all violations/Compliance Exceptions closed as of 11/15/17) / (Total number of violations closed as of 11/16/17)

There is no performance contribution greater than 100%.

Performance contribution	50%	100%
Averaged close-out completion (days)	55	45

Weight: 5%

Comments: This metric indirectly supports *Goal 5 – Effective and efficient ERO Enterprise operations* in the *ERO Enterprise Strategic Plan 2017-2020*.

¹⁰ A violation is closed when the NCEA is issued or the 60-day clock for NERC’s and FERC’s review of the Compliance Exception or FFT has run. For a dismissal, the NCEA is issued with the Letter of Dismissal. For a MRRE for which SPP RE is not the lead region, the period for close-out begins upon receiving notice from the lead region that the violation is closed. For metric purposes, the closed violations subject to this metric will be derived from NCEAs issued between 11/15/16 and 11/16/17.

7. Publish non-public off-site audit report to NERC in less than 45 days

Objective: To ensure non-public off-site audit reports are issued in a timely manner.

Measure: The number of days is measured from the last day of the audit to submission of the non-public audit report to NERC.

Non-public off-site audit reports published in less than or equal to 45 days / non-public off-site audit reports published in 2017.

To be able to calculate the metric in January 2018, the metric applies to all non-public off-site audit reports for audits completed between 11/17/16 and 11/16/17.

Performance contribution	50%	100%	120%
Percent published in <= 45 days	90%	100%	40¹¹
Average number of days			

Weight: 7.5%

Comments: i. To achieve > 100% performance contribution, based on the average number of days to publish an off-site audit report, the RE must publish 100% of the off-site audit reports in <= 45.

ii. This metric indirectly supports *Goal 5 – Effective and efficient ERO Enterprise operations* in the *ERO Enterprise Strategic Plan 2017-2020*.

iii. Audit reports which are not the responsibility of SPP RE (e.g. SPP RE serving in a non-lead role for MRRE audits) shall be excluded from the metric.

iv. The weighting of this metric was increased from 5% to 7.5% to reflect the relative importance of the metric following the reduction in the number of metrics.

8. Publish non-public on-site audit report to NERC in less than 65 days

Objective: To ensure non-public on-site audit reports are issued in a timely manner.

Measure: The number of days as measured from last day of the audit to submission of the non-public audit report to NERC.

Non-public on-site audit reports published in less than or equal to 65 days / non-public on-site audit reports published in 2017.

¹¹ To achieve 120% performance contribution, the average time to publish non-public off-site audit reports must be less than or equal to 40 days.

To be able to calculate the metric in January 2018, the metric applies to all non-public on-site audit reports for audits completed between 10/27/16 and 10/26/17.

Performance contribution	50%	100%	120%
Percent published in <= 65 days Average number of days	90%	100%	55¹²

Weight: 7.5%

Comments: i. To achieve > 100% performance contribution, based on the average days to publish on-site audit reports in <= 65 days, the RE must publish 100% of the non-public on-site audit reports in <= 65 days.

ii. This metric indirectly supports *Goal 5 – Effective and efficient ERO Enterprise operations* in the *ERO Enterprise Strategic Plan 2017-2020*.

iii. Audit reports which are not the responsibility of SPP RE (e.g., SPP RE serving in a non-lead role for multi-region audits) shall be excluded from the metric.

iv. The weighting of this metric was increased from 5% to 7.5% to reflect the relative importance of the metric following the reduction in the number of metrics.

9. Publish internally completed assessment of Self-Certification/periodic data submittals

Objective: Complete and publish internal assessments of Self-Certification and periodic data submittals by the due dates established by NERC or SPP RE procedures.

Measure: (number of assessments completed by the due date) / (total number of assessments for 2017) = percent completed on time

The performance contribution cannot exceed 100%.

Performance contribution	50%	80%	100%
Percent completed on time	80%	90%	100%

Weight: 7.5 %

Comments: i. This metric indirectly supports *Goal 5 – Effective and efficient ERO Enterprise operations* in the *ERO Enterprise Strategic Plan 2017-2020*.

ii. SPP RE anticipates fourteen (14) assessments in 2017.

¹² To achieve 120% performance contribution, the average time to publish non-public on-site audit reports must be less than or equal to 55 days.

10. Perform preliminary screening of potential noncompliance issues in webCDMS in 5 business days or less

Objective: To ensure the preliminary screen for potential noncompliance issues is performed in webCDMS in a timely manner.

Measure: The number of business days to enter potential noncompliance issues into webCDMS as measured from the date of the Registered Entity exit presentation for compliance audits, the issuance of the engagement report for spot-checks and investigations or from the date the Registered Entity submitted a self-report, self-certification, or self-logging spreadsheet as applicable, to completion of the preliminary screen.

The number of incoming potential noncompliance issues processed in less than or equal to 5 business days / number of incoming violations in 2017.

The performance contribution cannot exceed 100%.

Performance contribution	80%	100%
Percent potential noncompliance issues processed in <= 5 business days	90%	100%

Weight: 2.5%

Comments: This metric is a CMEP requirement.¹³ The metric indirectly supports *Goal 5 – Effective and efficient ERO Enterprise operations* in the *ERO Enterprise Strategic Plan 2017-2020*.

11. Control out-of-pocket expenses for compliance oversight (contractor billings and travel)

Objective: Control out-of-pocket travel expenses and contractor billings for on-site audits, off-site audits, and spot checks by improving compliance staff's efficiency and incorporating the results of a Registered Entity's Inherent Risk Assessment in the Registered Entity's Compliance Oversight Plan.

2017 Budget:

CIP	\$400,000
O&P	\$400,000

¹³ CMEP Section 3.8. "The Preliminary Screen shall be conducted within five (5) business days after the Compliance Enforcement Authority identifies the potential noncompliance..."

Measure: $[(2017 \text{ actual}) - (2017 \text{ budget})] / [2017 \text{ budget}] = \text{percent increase/decrease}$

Performance contribution	50%	100%	150%
Percent difference	+10%	-5 %	-15%

Weight: 12.5 %

Comments: i. This metric tracks out-of-pocket expenses for audits and spot checks (it does not track internal man-hours or fixed overhead expense.) The total contractor billings and SPP RE travel expenses for audits are tracked and monitored.

ii. The weighting of this metric was increased from 10% to 12.5% to reflect the relative importance of the metric following the reduction in the number of metrics.

iii. This metric indirectly supports *Goal 5 – Effective and efficient ERO Enterprise operations* in the *ERO Enterprise Strategic Plan 2017-2020*.

12. Conduct outreach on protection system misoperations

Objective: Raise misoperations awareness by conducting outreach on transmission and generation protection systems/misoperations through 12 outreach activities (e.g. organizational group meetings, compliance engagements, compliance workshops, and newsletter articles).

Measure: $(\text{total number of outreach activities completed in 2017}) / (12) = \text{percent completion}$

The performance contribution cannot exceed 100%.

Performance contribution	80%	100%
Percent Completion	90%	100%

Weight: 5%

Comments: i. SPP RE does not have direct control over the operations success rate of Registered Entity protection system relays. Nevertheless, SPP RE will engage in outreach efforts to reduce misoperations within the SPP RE region.

ii. The weighting of this metric was increased from 2.5% to 5% to reflect the relative importance of the metric following the reduction in the number of metrics.

iii. This metric directly supports *Goal 4 – Identification and Assessment of Emerging Risks to Reliability* in the *ERO Enterprise Strategic Plan 2017-2020*. Metric 6 states, “Reduced risks in targeted areas establishes an annual misoperations rate of performance target of 8%.”

13. Outreach Production Goals

Objective: Complete 3 workshops, 10 videos/webinars, 12 newsletters

Measure: Percent completion: The number of workshop, webinars and newsletters completed in 2017 / the number of workshops, webinars and newsletters planned in 2017.

Performance contribution	80%	100%
Percent completion	80%	100%

Weight: 10%

Comments: i. Four additional video/webinars were added to the 2016 metric goal for a total of ten in 2017.

ii. The use of the SPP RE Stakeholder Satisfaction Survey Results to establish a qualitative measure has been moved to metric 14.

iii. This metric indirectly supports the *Goal 2 - Standards* in the *ERO Enterprise Strategic Plan 2016 – 2019*, wherein a key deliverable is conducting outreach, training and education.

14. 2017 SPP RE Stakeholder Satisfaction Survey Results

Objective: To ensure SPP RE is meeting the expectations of its stakeholders, the aggregate metric score shall be adjusted based on the results of the *2017 SPP RE Stakeholder Satisfaction Survey*.

Measure: The SPP RE overall satisfaction rating shall be utilized to adjust the aggregate final score of metrics 1 – 13 to establish a metric score for performance compensation payout.

Performance contribution	50%	100%	125%
Overall Satisfaction Rating	2 Rating	3.25 - 3.75 Rating	5 Rating

Weight: N/A

Comments: i. This metric adjustment adds a qualitative measure to all metrics.

ii. A rating of 1 is *poor*, 2 is *below average*, 3 is *average*, 4 is *good*, and 5 is *excellent*. In the past six years, SPP RE’s overall satisfaction rating has ranged from 3.8 to 4.1.

iii. This metric indirectly supports *Goal 2 - Objective and Risk-informed Compliance Monitoring, Enforcement, and Organization Certification and Registration* in the *ERO Enterprise Strategic Plan 2017 – 2020*, wherein key deliverables are:

- Implement registration program improvements to ensure consistent technical basis for registration and deregistration of entities;

- Implement the certification program consistently across the ERO Enterprise;
- Develop and implement compliance oversight plans for registered entities focusing on relevant risks, including consideration of inherent risk assessments and internal control evaluations;
- Implement compliance monitoring and enforcement timely and transparently, using a consistent framework;
- Provide guidance and outreach to registered entities, including the review of Implementation Guidance for endorsement;
- Reduce recidivism through rigorous assessment of registered entities' plans to mitigate noncompliance; and
- Evaluate the existing compliance, reporting, and analysis tracking system and other compliance tools to support risk-based activities that meet the needs of the CMEP.

SPP RE Strategic Plan (2017-2020)

January 30, 2017

Ron Ciesiel
General Manager



Strategic Plan History

1st Strategic Plan 2012-2015

- **Provided structure and guidance following two FERC audits of SPP RE**
 - Somewhat retrospective - focused on audit results and recommendations
 - Meant to mature SPP RE into a separate organization with independent governance
 - Carry out delegated functions while embracing SPP's mission and values

Strategic Plan 2017-2020

- **Recognize maturity of SPP RE**
 - Renewed Regional Delegation Agreement, effective through 2020
 - Prospective – alignment with NERC's goals and metrics
 - Maintain consistency with SPP's mission and values

Support NERC's Goals and Metrics

- NERC's ERO Strategic Plan 2017-2020 approved in November 2016
- Goals and metrics designed to ensure a highly reliable and secure North American bulk power system
 - *Goal 1: Risk-responsive Reliability Standards*
 - *Goal 2: Objective and risk-informed compliance monitoring, enforcement, and certification and registration*
 - *Goal 3: Identification and mitigation of significant risks to reliability*
 - *Goal 4: Identification and assessment of emerging risks to reliability*
 - *Goal 5: Effective and efficient ERO enterprise operations*
- SPP RE's goals and metrics aligned with ERO goals

Consistency with SPP's Mission and Values

- **SPP RE's Mission Statement**
 - *Helping our stakeholders and registered entities keep the lights on ... today and in the future, by promoting bulk power system reliability excellence, monitoring compliance with FERC approved risk-responsive electric reliability standards, assessing the adequacy of the bulk power system, and serving as a champion of reliability and security matters.*
- **SPP RE operates independently, but has similar core-values to SPP**
 - Relationship-based
 - Stakeholder-driven
 - Independence through diversity
 - Evolutionary vs. revolutionary
 - Reliability and economics inseparable

Conclusion

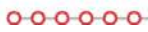
- **Together with NERC and the other seven REs, SPP RE will work to mitigate risks to the reliability and security of the bulk power system**
- **SPP RE's Strategic Plan for 2017-2020 will provide the roadmap for SPP RE's work over the next four years**
- **SPP RE staff's annual goals and metrics provide visible, measureable assurance that SPP RE is effectively and efficiently performing its delegated functions**



**SPP Regional Entity
Strategic Plan
2017-2020**

DRAFT

January x, 2017



Revision History

Version Number	Change Description	Trustee Approval Date	Comments
1	Original Document	01/30/2012	
2	Overall Update; Alignment with NERC's Strategic Plan	01/xx/2017	

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Introduction and Overview

Letter from the General Manager and Chairman of the Trustees

January x, 2017

We are pleased to present SPP RE's Strategic Plan 2017-2020. Over the past five years, SPP RE has matured into a fully functional organization embracing the benefits of independent governance and organization alongside an RTO.¹ SPP RE has successfully carried out the authority delegated to it by NERC and executed another five year Regional Delegation Agreement effective January 1, 2016.

The SPP RE Strategic Plan provides an SPP RE mission consistent with the SPP mission that also addresses the unique role and responsibilities of a Regional Entity to support the goals and metrics in the 2017-2020 ERO Enterprise Strategic Plan.² The five ERO Enterprise goals are:

- Goal 1: Risk-responsive Reliability Standards
- Goal 2: Objective and Risk-informed Compliance Monitoring, Enforcement and Organization Certification and Registration
- Goal 3: Identification and Mitigation of Significant Risks to Reliability
- Goal 4: Identification and Assessment of Emerging Risks to Reliability
- Goal 5: Effective and Efficient ERO Enterprise Operations

This document will serve as a guide for SPP RE's planning processes and ongoing actions over the next four years as we work with NERC and the other Regional Entities to achieve these goals.

Ron Ciesiel
General Manager
SPP RE

Dave Christiano
Chairman
SPP RE Trustees

¹ FERC approved SPP RE's structure, processes and procedures in October 2011. Final Audit Report, Docket No. PA11-2-000, p.6 (October 2011).

² Electric Reliability Organization Enterprise Strategic Plan and Metrics.

http://www.nerc.com/gov/bot/MRC/Documents/Draft%20ERO%20Enterprise%20Strategic%20Plan%20and%20Metrics%202017-2020_10182016.pdf

Background and History

Southwest Power Pool, Inc. (SPP), founded in 1941 and based in Little Rock, Arkansas, is a nonprofit organization whose primary mission is maintaining electric reliability. SPP is one of nine Federal Energy Regulatory Commission (FERC)-approved Independent System Operators/Regional Transmission Organizations and one of eight North American Electric Reliability Corporation (NERC) Regional Entities.

Southwest Power Pool Regional Entity (SPP RE), an independent and functionally separate division of SPP, was created to fulfill the functions and duties specified in the SPP Regional Delegation Agreement (RDA) with NERC approved by FERC in 2008 and again in October 2010. The current RDA, effective 2016 to 2020, was approved by FERC in March 2016. As a NERC Regional Entity, SPP RE promotes and works to improve the reliability and security of the bulk power system (BPS). Specifically, SPP RE is responsible for developing regional reliability standards, monitoring and enforcing registered entity compliance with reliability standards, and assessing and evaluating the risks to BPS reliability. SPP RE provides technical expertise and assistance to BPS owners, operators and users, in particular to the approximately 120 registered entities located within the SPP RE's footprint, an eight-state area that includes Arkansas, Kansas, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, and Texas.

Governance

Pursuant to the SPP bylaws, SPP RE is governed by up to four independent Regional Entity Trustees, who are not on the SPP Board and operate separately from the SPP Board. The SPP RE Trustees have autonomy over decisions in fund allocation and approval of the SPP RE budget, as well as oversight of SPP RE decisions on regional standards, compliance enforcement actions and penalties. The SPP RE's General Manager reports directly to the SPP RE Trustees. Only the SPP RE Trustees and certain direct SPP RE staff members have the authority to make compliance and enforcement decisions. SPP RE direct staff is independent of all BPS users, owners, and operators.

To avoid the appearance of any conflicts of interest, SPP RE has engaged SERC Reliability Corporation to serve as the compliance enforcement authority for SPP's registered functions in the SPP region.

SPP RE's governance meets the requirements of the Energy Policy Act of 2005.

Statutory Functional Scope

SPP RE performs the following activities in the execution of its delegated functions and in support of NERC's responsibilities as the Electric Reliability Organization:

- Reliability Standard Development
- Compliance Enforcement
- Organization Registration and Certification
- Reliability Assessment and Performance Analysis
- Training and Education
- Situation Awareness and Infrastructure Security

Shared Staff and Overhead Functions

SPP RE utilizes SPP engineering shared staff to coordinate and facilitate the development of regional reliability standards and to conduct certain technical studies not associated with the compliance monitoring function such as reliability assessments. SPP also provides SPP RE with administrative support including, but not limited to, Information Technology, Human Resources, and Accounting.

Strategic Plan Philosophy

The SPP RE Strategic Plan is based on the following assumptions:

1. SPP RE continues to operate as an independent and functionally separate division of SPP; and
2. SPP RE continues to utilize SPP engineering shared staff to coordinate and facilitate the development of reliability standards and conduct certain activities in the SPP RE's Reliability Assessment and Performance Analysis program.

Mission and Value Proposition

SPP RE's Mission and Value Proposition are consistent with those of SPP, while addressing the unique role and responsibilities of a Regional Entity.

Mission

Helping our stakeholders and registered entities keep the lights on ... today and in the future by promoting bulk power system reliability excellence, monitoring compliance with FERC approved risk-responsive electric reliability standards, assessing the adequacy of the bulk power system, and serving as a champion of reliability and security matters.

Value Proposition

Relationship-Based

We build positive relationships with our registered entities, FERC, NERC and the other Regional Entities to enhance collaboration in promoting bulk power system reliability and security.

Stakeholder-Driven³

We utilize stakeholder expertise to maximize efficiencies in areas not related to the compliance monitoring function. We design our outreach program to match our registered entities' needs. We participate in SPP working groups to better understand reliability concerns and to make stakeholders aware of emerging ERO issues.

Independence through Diversity

We receive stakeholder input through balanced representation of the diverse participation in SPP's organizational groups.

Evolutionary vs. Revolutionary

We strive to continuously improve our processes building on knowledge gained from our experiences. We are thoughtful about policy and process changes taking into consideration the impact to our registered entities.

Reliability and Economics Inseparable

We believe that electric reliability and security issues cannot be debated in the absence of economic/equity issues. Consideration must be given to balancing cost-effectiveness with functional impact.

SPP RE's Three Foundational Strategies

1. **Effectively Perform NERC Delegated Functions** - Effectively and efficiently carry out the Regional Entity delegated functions of registration and certification, compliance monitoring and enforcement, reliability assessments and performance analysis, training, and situational awareness.

³ As used in this Strategic Plan, a "stakeholder" includes any party that SPP RE engages with that is concerned about maintaining the reliability and security of the Bulk Power System. This includes, but is not limited to, FERC, NERC, other Regional Entities, state government and regulatory agencies, trade associations, industry groups including utilities, municipalities, co-ops, and independent power producers and independent transmission companies.

- a. Organization - Develop and maintain an organization with the skills and resources required to effectively and efficiently carry out the delegated functions
 - b. Processes – Implement and continuously improve processes to effectively and efficiently carry out the delegated functions
 - c. Efficiency – Lower registered entity costs by being within the same organization as the RTO, thereby avoiding duplication of corporate support services and engineering services not related to compliance.
2. **Create Registered Entity Value** – Create value for stakeholders and registered entities in the performance of delegated functions and through education and outreach activities.
- a. Carry out delegated functions with a focus on providing value to registered entities
 - 1. Seek opportunities to provide value through risk-informed compliance audits designed to identify areas of non-compliance and provide useful information to registered entities to improve reliability and security
 - 2. Perform audits consistent with Generally Accepted Auditing Standards including fairness and non-discriminatory application of standards
 - b. Provide information to registered entities to improve reliability, security and compliance performance
 - 1. Conduct workshops, hold webinars and publish newsletters
 - 2. Publish lessons learned from events analysis
 - 3. Promote registered entity involvement in NERC and SPP RE reliability and security activities
 - c. Participate in SPP working groups to better understand reliability and security concerns and to make stakeholders aware of emerging ERO issues.
3. **Enhance Reliability and Critical Infrastructure Protection** – Recognize significant risks to reliability and identify areas for improving reliability and critical infrastructure protection standards. Pursue implementation of new or revised reliability standards and other SPP RE or NERC processes.

Conclusion

This Strategic Plan provides a focus for SPP RE's efforts over 2017-2020. Successful implementation will enable SPP RE to meet its mission and to support the ERO's mission to effectively and efficiently mitigate risks to the reliability and security of the bulk power system in North America.

SPP RE has and will continue to make internal changes to enhance its organizational effectiveness and efficiency. The electric industry is a dynamic and rapidly changing. The changing environment can have significant impact on specific components of this Strategic Plan. SPP RE will facilitate periodic review of the elements of this plan to be revised as necessary.

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NERC Operating Committee

December 13-14, 2016

Report to the SPP Regional Entity Trustee Meeting

Jim Useldinger, South Central MCN
juseldinger@gridliance.com

A regular meeting of the NERC Operating Committee (OC) was held on December 13-14, 2016 in Atlanta, Georgia.

OC meeting highlights:

- **VOTING ITEMS**

- **Reliability Guideline: Inadvertent Interchange**

As part of the BAL-006 drafting team process, the recommendation, and subsequent approval of the retirement of BAL-006 as a reliability standard was contingent on the development of an Inadvertent Interchange Guideline. The Resources Subcommittee and NERC Project 2010-14.2.1 Standard Drafting Team jointly developed a reliability guideline that addresses the calculation of Inadvertent Interchange.

The OC approved this Guideline.

- **Reliability Guideline: Integrating Reporting ACE with the NERC Reliability Standards**

As part of the BAL-005 drafting team process, the drafting team and the Resources Subcommittee jointly developed a guideline that will be beneficial on “how” to calculate ACE since it is used in several Reliability Standards as measurement.

The OC approved this Guideline.

- **ERO Event Analysis Process**

The Event Analysis Subcommittee drafted a revised ERO Event Analysis Process redline and a justification letter for the proposed changes to Event Category 1g and 3a. The justification letter provides the explanation for the changes as requested by ERCOT regarding generation setpoints. A second area of revision was made to align Category 2a with EOP-004 requirements and include Interpersonal Communication and Alternative Interpersonal Communications

The OC approved the revised ERO Event Analysis Process Version 3.1 with an effective date of January 1, 2017.

- **Electric System Restoration Reference Document**

The Operating Reliability Subcommittee completed a review of this Reference Document and does not believe it provides significant reliability benefits to the industry any longer and recommended that the OC archive/retire the reference document.

The OC approved to archive/retire the Electric System Restoration Reference Document

- **Distributed Energy Resources (DER) Report**
The Distributed Energy Resources Task Force developed a final report identifying and assessing their impact on the BES. The report focuses on understanding the basics of modeling, planning, and operating DERs.
The OC approved the report
- **Essential Reliability Services Sufficiency Guidelines White Paper**
The Essential Reliability Services Working Group presented a white paper that addresses the methodology for Essential Reliability Services measures sufficiency guidelines. The white paper focuses on methods for frequency, voltage, and ramping.
The OC approved the white paper.
- **Reliability Coordinator Reliability Plans**
The Operating Reliability Subcommittee completed their review of the need for reliability plans in light of the new requirements stated in IRO-014. The ORS recommended that the Reliability Coordinators continue to develop and maintain Reliability Plans. The ORS also recommended that the current NERC “Guideline for Approving Regional and Reliability Coordinator Reliability Plans” be updated by the ORS to reflect the ORS expectations around Reliability Plans, such as removing RROs from the process, retaining ORS endorsement of Reliability Plan changes, removing the periodic review requirement, and including criteria for what plan changes need to be brought to the ORS. The ORS agrees that reliability plans could include multiple RCs, if preferred. NERC supports oversight of the RC plans since they require coordination and collaboration, and is supportive of a guideline change as it relates to oversight of RC plans.
The OC endorsed continuation of the RC Reliability Plans.

- **INFORMATION ITEMS**

- **Past OC Chairs and Secretary Roundtable**
A panel of past OC Chairs including Sam Holeman, Tom Bowe, Jim Castle and immediate Secretary Larry Kezele was convened to discuss their experience leading the OC over the past six years. Example questions asked of the panel included what your biggest challenges, what seemed insurmountable but was able to be completed, what part of the process needed to be changed, what are the current challenges for the OC?
- **Methods for Establishing IROLs Task Force (MEITF)**
The NERC Standards Committee requested the OC (and PC) form a team of technical experts for the purpose of developing technical material for the IROL-related issues related to the manner in which certain interconnection limits are established.
- **System Operator Certification and Continuing Education Database**
Information was presented by NERC staff on the System Operator Certification renewal process. There is currently one person on NERC staff that is responsible for this manual process. NERC will be instituting an automated process in 2017. The database currently includes participants from 75 countries, over 3000 providers, and over 8000 certifications.

- **COMMITTEE AND SUBCOMMITTEE ITEMS (in addition to voting items above)**

Operating Reliability Subcommittee (ORS)

- 1) Approved a change in the RC rotation as Time and GMD monitor to New England ISO RC
- 2) Received updates on Hurricane Hermine and Matthew operations, impacts and restoration, and will continue to ask for lessons learned/good practices

Resources Subcommittee (RS)

- 1) In regards to the Generator Survey, the RS is requesting the RCs to provide historical generator data (generator ID info and on/off status) which will be used to compare against submitted generator survey responses and to allow for possible outreach to generator owners and provide an indication of survey success
- 2) BAAL and CPS data for third quarter 2016 was reviewed for all BAs in all four interconnections and no significant observations were noted
- 3) RS will continue to monitor time error, BAs inadvertent balance changes, and mismatches of NIS and NIA between BAs

Event Analysis Subcommittee (EAS)

- 1) 4th annual Monitoring and Situational Awareness Technical Conference was held September 27-28, 2016 at CAISO focusing on energy management system resiliency
- 2) Formed a task force to address how Real-time Assessments are completed when there is a loss of EMS, investigate the compliance and reliability concerns, and develop any necessary guidance
- 3) Six new Lessons Learned – five were EMS related

Personnel Subcommittee (PS)

- 1) Working on a comprehensive evaluation of adult learning principles and instructional design concepts in order to develop program criteria that results in quality learning events

OC Meeting Schedule

The next meeting of the Operating Committee will be on March 7-8, 2017 in Atlanta, Georgia.

June 6-7, 2017 location TBD

September 12-13, 2017 location TBD

December 12-13, 2017 location TBD



2016 SPP RE Annual Report

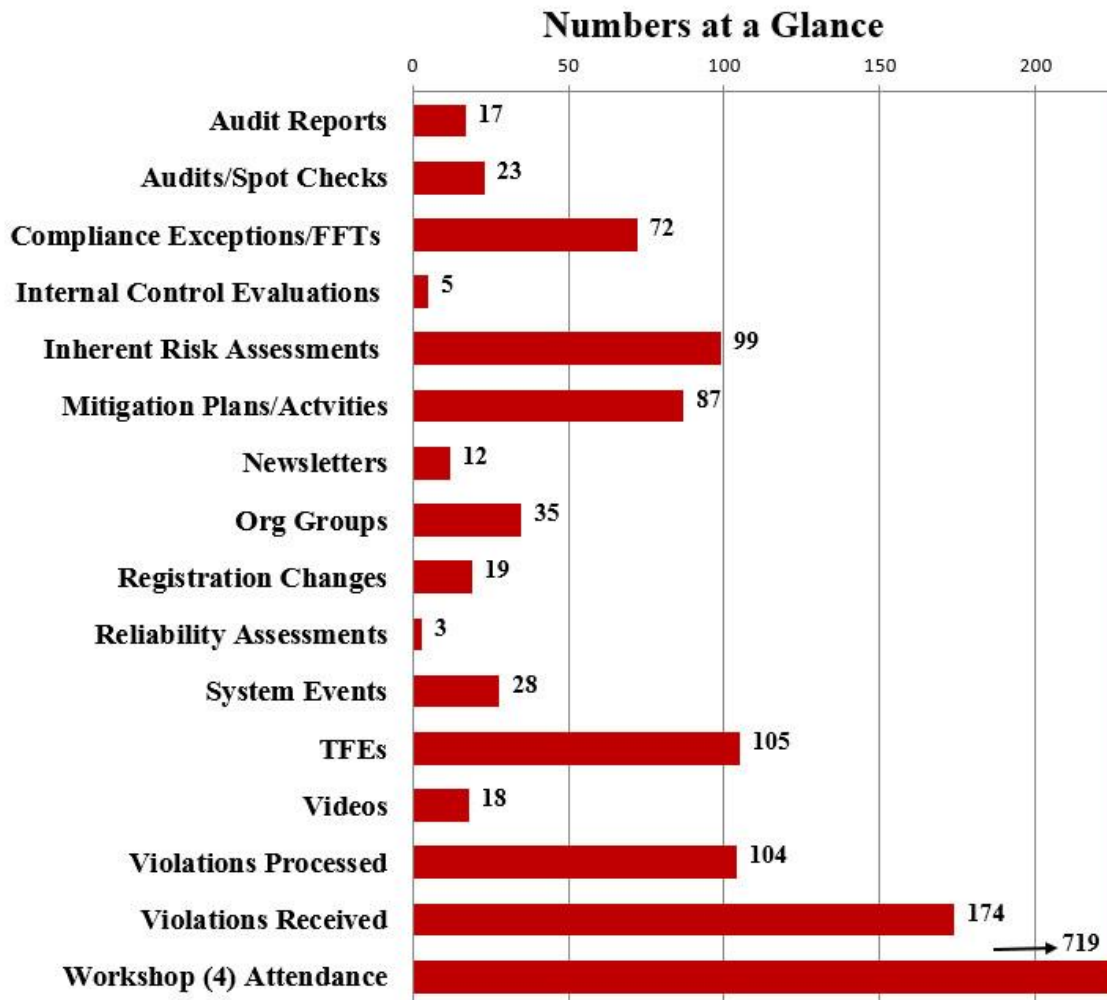
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Executive Summary

In 2016, SPP RE staff had a weighted total metrics achievement of 104%. Other highlights include:

- Improved audit processes, resulting in decreased audit times and team sizes
- Conducted targeted outreach on CIP V5/6 transition and misoperations
- Continued implementing risk-based processes including Inherent Risk Assessments, Internal Control Evaluations, and the Coordinated Oversight program
- 90% of incoming violations were self-identified, denoting strong compliance cultures at SPP RE Registered Entities
- System events were at the lowest level of severity
- All lines under the Facilities Ratings program have been assessed, and almost all discrepancies have been mitigated
- Published three Regional Reliability Assessments
- Received positive feedback from NERC and FERC observers of SPP RE audits
- Received favorable ratings on the annual stakeholder survey
- Operated under budget



Budget Performance

SPP RE's 2016 actual expenses were \$9.3 million, compared to the 2016 budget of \$10.1 million. Although SPP RE was under budget for 2016, all of its required activities were completed as a result of SPP RE staff's increased experience, enhanced efficiencies in internal SPP RE processes, and an overall continued performance improvement on the part of the Registered Entities.

The budget variance of ~\$783 thousand was driven by open staff positions and the delay in the implementation date of CIP Version 5/6 (V5/6). SPP RE ended 2016 with three open staff positions and had several positions that were vacated and later filled during the year. The staffing level impacts personnel and travel expenses.

The delay in CIP V5/6 caused four onsite CIP audits to be moved from 2016 to 2017, contributing to the budget variance. Other contributors or offsets to the budget variance include the hiring of two new RE Trustees and the development of the Engineering Data Validation tool. With the conversion of the SPP, Inc. charge to primarily fixed, the variance level for this expense has been greatly reduced and is no longer a major contributor to the overall budget performance.

Compliance Monitoring

Monitoring Activities

SPP RE and the ERO are still implementing new risk-based programs, including Inherent Risk Assessments (IRA), Internal Control Evaluations (ICE), and Coordinated Oversight for Multi-Region Registered Entities (MRRE). IRAs identify the areas of focus and the level of oversight needed to monitor compliance with enforceable NERC reliability standards. IRAs are used to develop a Registered Entity's monitoring interval, scope, and monitoring method (including audits, spot checks, self-certifications, and self-monitoring).

In 2015-2016, SPP RE completed 99 IRAs; this includes all Registered Entities for which SPP RE is responsible for leading oversight activities. Following the completion of these Registered Entities' IRAs, four were monitored as spot checks. One CIP V5/6 spot check was conducted as a follow-up to a previous CIP Version 3 (V3) on-site audit where non-compliance was found. All spot check reports were completed within the NERC-specified timelines.

In 2016, SPP RE conducted 10 Operations & Planning (O&P) off-site audits and published 10 off-site audit reports. Audit teams conducted four O&P and four CIP V5/6 on-site audits and published seven on-site audit reports. One CIP report will be completed in early 2017. CIP V5/6 auditing commenced in late July 2016 following the FERC-revised effective date of the new standards. Due to the new CIP standards, no CIP V3 audits were conducted in 2016.

In 2016, the average time to issue on-site audit reports was 46 days, compared to our goal of 65 days. No reports exceeded the 65-day goal, including audit reports prepared by another Regional Entity. The average time to issue off-site audit reports was 31 days, compared to our goal of 45 days; no reports exceeded the 45-day goal.

SPP RE completed five ICEs, two requested in 2015 and three in 2016. As a result of the ICEs, audit field work was reduced for several Registered Entities.

SPP RE is the Lead Regional Entity for 18 Registered Entities in six MRRE groups that have opted-in to the Coordinated Oversight for MRRE program. SPP RE is the Affected Regional Entity for 22 Registered Entities led by other Regional Entities.

In 2016, SPP RE conducted five self-certifications. One off-cycle self-certification was performed on PRC-019-2, PRC-024-2, and MOD-025-2 in September due to concerns these standards were not being implemented by July 1 as required by the NERC implementation plans. The results were quite dramatic: 81 reported violations. Collectively, these three standards represent ~50% of SPP RE's reported violations for the previous 12 months.

The SPP RE CIP team conducted multiple CIP V5/6 outreach sessions as part of the CIP V5/6 Transition Plan. Two of the outreach sessions were comprehensive readiness reviews for the subject Registered Entity. The remaining sessions consisted of a host company sponsoring a multi-company training and Q&A session with numerous Registered Entities participating, including one from outside SPP RE. Each session was multi-day, and the agendas were driven by the participating stakeholders. Overall, about 25 Registered Entities participated in this targeted V5/6 outreach.

Audit Improvements

The O&P and CIP audit teams continued to implement process and performance improvements in 2016. Compliance staff continued use of the NERC Auditor Handbook and associated checklist to verify consistency of audit documentation and work papers.

The average time to publish audit reports remained consistent with 2015. The O&P team continued to enhance their pre-audit evidence reviews. These reviews allow the team to work more efficiently and effectively once the official audit period begins, and allow them to make assessments on some standards without further action during the audit. Based on the results of the pre-audit review, the audit team leaders were able to reduce the amount of time spent on-site from approximately 3.5 days to 2.5 days, and in some cases to reduce the size of the on-site audit team.

The CIP audit team continued its comprehensive, multi-week, pre-audit evidence review for on-site audits. Pre-audit activities include collection and review of randomly sampled evidence and a review of follow-up evidence requests stemming from the first evidence review. The first round of CIP compliance audits for Balancing Authority/Transmission Operator-Registered Entities was completed in 2013. Since completion of these audits, the CIP audit team has not seen a significant reduction in questions and possible findings requiring follow-up during the on-site audit; therefore, the CIP team has not been able to take advantage of the pre-audit reviews to eliminate a meaningful number of on-site requirements.

The CIP team continued the pre-audit review process initiated at the end of 2015 that greatly increased the audited Registered Entity's involvement. In addition to generating follow-up evidence requests, the CIP team submitted questions and scheduled daily or as-needed conference calls with the Registered Entity's subject matter experts. As a result, the CIP team was able to reduce the average on-site work from two weeks to four and a half days for each audit. The audit team will continue to evaluate and refine this practice in 2017.

Compliance with CIP Low Impact BES Cyber Systems is effective April 1, 2017, which will significantly expand the audit activity over prior years. The CIP audit team has scheduled 14 audits for Registered Entities that only have Low Impact BES Cyber Systems and anticipates these audits to be conducted off-site.

The CIP and O&P teams continued to emphasize outreach during the audit field work, as permitted by the GAO Generally Accepted Government Auditing Standards. Outreach efforts were coordinated with the audited Registered Entity's Primary Compliance Contact throughout the audit, starting with the 90-day audit notice, to ensure the level of outreach was acceptable to and met the Registered Entity's expectations.

The O&P audit team outreach focused on reducing misoperations due to communication failures, discussing upcoming enforceable standards, explaining the new Risk-Based Compliance Monitoring and Enforcement processes, and suggesting internal control activities for specific requirements. CIP outreach focused primarily on the transition to the CIP V5/6 standards, with emphasis on requirements applicable to High and Medium Impact BES Cyber Systems in the first half of 2016 and on Low Impact BES Cyber Systems in the second half of 2016. The outreach conducted during the CIP audit field work is in addition to the extensive outreach engagements previously mentioned.

Many of the SPP RE compliance staff are members of or observers to various NERC and SPP working groups and task forces. Two staff are actively involved with the new and revised O&P RSAWs and the CIP Version 5/6 RSAWs. One team member continued as an active member of the ongoing Handbook Task Force. Two staff participated in the IRA Base Case Study with all eight Regional Entities and NERC to develop a consistent approach to developing Registered Entities' IRAs.

We enhanced audit staff training through several mechanisms. In conjunction with NERC and the other REs, audit staff and SPP RE contractors participated in a NERC-sponsored auditor workshop. The CIP audit team participated in the 2016 NERC Grid Security Conference as well as NERC-sponsored auditor training for the new CIP V5/6 standards. Several staff attended a NERC-led performance auditing training workshop, several CIP and O&P auditors are enrolled in training that will result in Certified Internal Auditor certifications, and two CIP auditors and one O&P auditor are pursuing a Physical Security Professional certification.

FERC and NERC observers attended one CIP audit in 2016. FERC observers attended one O&P audit and NERC observers attended two O&P audits. While there is always room for improvement, the general tone of the feedback sessions from observers was very positive.

Technical Feasibility Exceptions

The Technical Feasibility Exception (TFE) Program related to CIP standards completed its seventh year in 2016. We have processed 1,069 new or amended TFE requests since the program's inception, including 108 new or amended TFEs submitted in 2016. Of the 108 TFEs submitted in 2016, 85 were approved, 13 were disapproved, nine were amended before they could be acted on, and one remained pending approval at the end of the year. A total of 220 TFEs were administratively terminated with the transition to CIP V5/6 and another ten TFEs were terminated by the Registered Entities. The active TFE caseload at the end of 2016 was 40, a net decrease of 168 over 2015.

Enforcement

Violations and Compliance Exceptions

The downward trend in new violations ended in 2016, with the identification of 174 new violations of NERC Standards in the SPP RE region. Eighty-one of the incoming violations were for the revised PRC-019-2, PRC-024-2 and MOD-025-2 standards, which became enforceable on July 1, 2016. Of the 174 incoming violations, 156 or 90% were self-identified, i.e., self-reports, self-logging or self-certifications submitted by Registered Entities. This represents a significant increase from prior years (60%) and for the first time exceeds the threshold (70%) and target (75%) for self-identified non-compliance established in NERC's *Compliance Monitoring and Enforcement Oversight Plan*.

Notwithstanding the enforceability of CIP V5/6 on July 1, 2016, CIP violations (45) were down significantly in 2016 and - for the first time since implementation of the CIP standards - were less than the number of O&P violations. The lower number of CIP violations is attributed, in part, to moving four 2016 CIP audits to 2017. Nevertheless, only 16 CIP V5/6 violations were recorded in 2016.

The SPP RE Enforcement group closed 104 violations in 2016, exceeding its 2016 metric goal (82) by 22 violations. Similar to 2015, an overwhelming number (68) of the violations closed were processed as Compliance Exceptions, a disposition method reserved for noncompliance issues that pose a minimal risk to the Bulk Power System (BPS). The Find, Fix and Track process, a disposition method reserved for violations that pose a moderate risk to the BPS, was utilized to close four violations. The remaining 32 violations processed in 2016 were either dismissed (31) or processed utilizing the Full Notice of Penalty process (1). Registered Entity self-reports based on a misinterpretation of the standard resulted in more than half of the 2016 dismissals (17), with the misapplication of PRC-019-2 (to generators without voltage control at the generator) leading to the dismissal of 10 wind farm violations.

Under the NERC *Coordinated Oversight Program*, Enforcement transferred 17 MRRE violations to the designated Lead Regional Entities (LRE) in 2016. Nine of the transferred MRRE violations remained open at the end of 2016. Fifteen new MRRE violations were identified in 2016, 11 of which were reported in other REs. SPP RE's MRRE caseload was 31 at year's end, with SPP RE the designated LRE for nine of these violations.

Due to the large number of PRC-019-2, PRC-024-2, and MOD-025-2 violations identified in September, the Enforcement caseload at year's end increased to 154, as compared to 82 in 2015. The number of violations older than one year (44) is up significantly from the beginning of 2016 (36) because Enforcement was unsuccessful in closing 14 pre-2015 violations in 2016. The contentious nature of these violations contributed to extended settlement negotiations and delays.

Notwithstanding the aforementioned delays, the average age of all open SPP RE violations is 295 days, below the 12-month target established in NERC's *Compliance Monitoring and Enforcement Oversight Plan*. The Enforcement caseload at year's end includes 31 MRRE violations. The average age of the 22 MRRE violations in which SPP RE is not the LRE is 641 days. If these violations are removed from the SPP RE caseload, the average age of violations in the SPP RE caseload drops to 237 days.

Mitigation Plans

The option to submit “mitigating activities” in lieu of a mitigation plan when a violation is mitigated at or shortly after discovery was successfully utilized to mitigate 40 violations in 2016, up significantly from 2015 (17). Nevertheless, due to the increase in the number of incoming violations, the number of mitigation plans submitted in 2016 (82) did not decrease from 2015 (79). In addition to verifying the completion of the 40 mitigating activities, Enforcement verified the completion of 47 mitigation plans in 2016. Collectively, 87 mitigation plans and mitigating activities were verified as completed in 2016, as compared to 96 in 2015.

At the end of 2016, the number of violations without mitigation plans was up significantly from 2015. There were 50 violations without mitigation plans or mitigating activities at the end of 2016, compared with 31 at the end of 2015. Over half of the violations without mitigation plans (26) were for the PRC-019-2, PRC-024-2 and MOD-025-2 violations reported in September. Of the 31 MRRE violations in the SPP RE caseload at year’s end, SPP RE is the LRE for nine of these violations. All of the SPP RE MRRE violations either had mitigation plans submitted or were completed at year’s end.

Event Analysis Program

The Electric Reliability Organization (ERO) Event Analysis Process is a structured and consistent approach to reviewing and analyzing events that occur on the Bulk Power System. The Event Analysis process promotes a culture of reliability excellence and serves as a learning opportunity by disseminating valuable information to industry.

In 2016, SPP RE’s Event Analysis staff engaged with the ERO program and processed 28 reportable events. There are five event categories in the Event Analysis program, ranging from the least severe category 1 to the most severe category 5. Of the 28 reportable events, 15 rose to Category 1, the least severe category. The other 13 events were not significant enough to classify.

The 15 events fell under Category 1, classifications 1a and 1h:

1a – An unexpected outage that is contrary to design of three or more BES Facilities caused by a common disturbance

1h – Loss of monitoring or control at a Control Center such that it significantly affects the entity’s ability to make operating decisions for 30 continuous minutes or more.

In 2015 there were 21 reportable events, of which 10 events were categorized. While there was an increase in reportable events in 2016, all of the events were at the lowest level of severity.

After categorizing an event, SPP RE works with the impacted Registered Entities and NERC to assign a cause code to the event. Cause codes provide a systematic, measurable approach to understanding what occurred and how to reduce risk in the future. SPP RE cause coded 11 events in 2016.

Facility Ratings Alert Program

NERC launched a Facility Ratings alert program at the end of 2010, with a goal of having all BES lines checked for clearances and ratings by the end of 2013 and remediation of discrepancies complete by the end of 2014. Eight companies were granted extensions beyond the 2014 deadline due to LIDAR contractor availability, outage scheduling conflicts, and retaining resources.

By December 2016 only one company is still remediating its line discrepancies. Completion is expected by July 2017.

All lines under the Facilities Ratings Alert in the SPP RE region have been assessed. All high and medium priority line discrepancies have been mitigated, and 99.2% of the low priority line discrepancies have been mitigated.

Outreach

SPP RE holds three compliance workshops annually. Members, Registered Entities, and other interested parties are invited to attend in-person or via webinar to learn more about SPP RE and NERC processes, emerging issues, compliance best practices, and more. In addition to presentations by SPP RE staff, guests from FERC, NERC, and Registered Entities are invited to speak on topics of interest. In addition to the CIP workshop, in 2016 the SPP RE CIP team conducted on-site outreach meetings for ~25 Registered Entities in advance of CIP V5/6 implementation.

In October, SPP RE co-hosted a Misoperations Summit with the SPP Reliability Compliance Working Group and System Protection and Control Working Group. About 125 stakeholders attended - including Registered Entities, Regional Entities, FERC, and NERC - to discuss the issues surrounding relay protection, specifically misoperations of those systems. We ended the day with issues to be further discussed at all levels of the ERO. At the November NERC Board meetings, NERC recognized SPP for its leadership in the industry on this topic.

The three compliance workshops and Misoperations Summit had 719 participants.

SPP RE posts training videos to capture basic compliance education presented at webinars and workshops. In 2016 we posted 18 new videos and received 1,383 “plays” on all 60 videos. We issued 12 monthly e-newsletters that included feature articles, meeting invitations, and updates on SPP RE and ERO activities.

Organizational Group Participation

In 2016, SPP RE staff continued to participate in the following SPP organizational groups:

- Board of Directors
- Critical Infrastructure Protection Working Group
- Generation Working Group
- Market and Operations Policy Committee
- Model Development Working Group
- Operating Reliability Working Group
- Reliability Compliance Working Group
- SPP RE Trustees
- System Protection and Control Working Group
- Transmission Working Group

SPP RE staff participate in the following NERC groups:

- Board of Trustees
- Budget/Finance Group
- Certification Registration Working Group
- CIP Compliance Working Group
- Compliance Monitoring Group
- Compliance Oversight Task Force
- DADS (Demand Response Data System) Working Group
- Enforcement Group
- ERO Legal Group
- Event Analysis Subcommittee
- GADS (Generator Availability Data System) Working Group
- Inherent Risk Assessment Task Force
- Manual Task Force
- Misoperations Group
- Performance Analysis Subcommittee
- Reliability Standard Audit Worksheet Working Group
- Regional Entity Managers Group
- Reliability Assessment Subcommittee
- RAPA (Reliability Assessment Performance Analysis) Group
- TADS (Transmission Availability Data System) Working Group
- TFE Working Group

Staff also serve on the Board of the Energy Bar Association and Arkansas chapters of ISACA, Institute of Electrical and Electronic Engineers, and InfraGard Members Alliance.

Registration

SPP RE started 2016 with 113 Registered Entities. In 2016, SPP RE added 13 new Registered Entities and de-activated 6 Registered Entities. Seven of the new registrations were new wind farms. The balance of new registrations and deactivations were primarily either a change in ownership or a change in the operating company. SPP RE currently has 120 Registered Entities.

In 2014, FERC approved a revised definition of the Bulk Electric System (BES). The definition includes bright-line core criteria with various inclusions and exclusions. The ERO used a tool called BESNET to process these inclusions and exclusions.

BESNET is still in use for Registered Entities that submit an “exception request” to remove specific BES assets from ERO oversight. The volume of exception requests dropped off significantly in 2016. Only one exception request is pending review and processing in SPP RE. BESNET is no longer being used to apply the bright-line BES definition. Going forward, Registered Entities may notify SPP RE via email of substantive changes in its BES assets.

If a Registered Entity and SPP RE are unable to reach consensus on a registration decision, NERC has established NERC-led, centralized review panels to review the decision. The panels are comprised of a NERC lead with Regional Entity participants. The panels evaluate requests for (1) deactivation of, or decisions not to register, a Registered Entity that meets the Registry Criteria, (2) requests to add a Registered Entity that does not meet (i.e., falls below) the Registry Criteria, (3) disputes regarding the application of the Registry Criteria, and (4) requests for a sub-set list of applicable standards.

Three SPP RE Distribution Provider registrations are currently under consideration by review panels.

Reliability Assessments

SPP RE develops annual winter, summer, and long-term reliability assessments. The summer and winter assessments provide a high-level overview of seasonal reliability, including demand growth, capacity adequacy, and operational reliability. The 2016 winter and summer assessments found reserve margins to be adequate.

The long-term reliability assessment is a 10-year, qualitative outlook on the SPP RE region’s reliability. The 2016 report found that reserve margins for the SPP RTO footprint are expected to fall below the 13.6% reserve margin requirement by 2026. SPP formed a Capacity Margin Task Force to reevaluate its reserve margin. The committee determined a 12% percent margin would provide adequate reserves to the RTO. The new capacity margin will take effect in 2017.

SPP RE performed a Probability Assessment in 2016. NERC asked the REs to perform the Probability Assessment using two scenarios:

- Increase on-peak demand by 2% in 2018 and by 4% in 2020
- Increase MWh net energy by 2% in 2018 and 2% in 2020

SPP RE’s results were no loss of days for a ten-year period, showing adequate reserves for the two scenarios.

Stakeholder Survey

SPP RE strives to continuously improve its performance of its NERC-delegated functions. Each year, SPP RE asks its Registered Entities to provide anonymous input on the organization's programs and customer service to stakeholders. SPP RE issued the 2016 Stakeholder Satisfaction Survey on September 26 to the 86 Primary Compliance Contacts who are registered in SPP RE's compliance database (webCDMS). The survey had a 64% response rate. Of the 55 respondents, 7 opted out of the survey.

Respondents were asked to assess seven SPP RE programs on their importance, how well they meet expectations, and customer service/responsiveness. Stakeholders were also asked to assess SPP RE's performance in relation to other Regional Entities, to rate overall performance, and to provide qualitative comments.

Of the 21 respondents who interact with other Regional Entities, none rated SPP *much worse*, 5% rated SPP RE *somewhat worse*, 30% rated SPP RE *about the same*, 45% rated SPP RE *somewhat better*, and 20% rated SPP RE *much better*.

When asked how well SPP RE's programs and services meet expectations, respondents rated all with average scores in the *meets expectations* range between 3.2 and 3.6. When asked to rate employees' customer service ability or programs' responsiveness to needs, respondents rated all with average scores between *average* and *excellent*, from 3.9 to 4.4. The 2016 overall satisfaction rating of 4.0 is slightly down from last year's rating of 4.1.

Technology

In 2016, SPP RE worked with all REs and NERC to implement the TFE V6 update. This enhancement updated the list of CIP standards for which a Registered Entity can request a TFE. SPP RE staff worked with OATI and other REs to test and implement other general enhancements and improvements to the RE and Registered Entity interfaces.

SPP RE worked with NERC to implement quarterly misoperations data collection through the new MIDAS system (Misoperation Information Data Analysis). All the REs worked hard to backfill the historical misoperation data into MIDAS so the data can be updated by Registered Entities as needed. MIDAS provides consistency among the REs, we are now all collecting the same data.

Trustees

In early 2016, the Chair of the SPP RE Trustees, John Meyer, resigned. Dave Christiano was elected as the new Chair. To ensure the Trustees' continuing independence, SPP RE management and Trustees worked with the SPP Corporate Governance Committee to change the procedures by which Trustees are nominated/elected and added one new Trustee position. In July, Steve Whitley and Mark Maher were elected as new Trustees.

2016 Metrics Performance

Metric	Actual Performance
1. Maintain caseload of no more than one year	120%
2. Accept or reject Mitigation Plans within 30 days of submission by Registered Entity or within 10 days of resubmission.	83.33%
3. Complete Mitigation Plan completion reviews within 20 days of Registered Entity notification of completion	127.05%
4. Process pre-2015 violations and send to NERC by 11/1/16	0%
5. Complete incoming possible violation triage within 45 days of Compliance staff sending the possible violations to Enforcement	126.00%
6. Complete documentation close-out of all violations within 45 days of issuance of the NCEA	100%
7. Publish non-public off-site audit report to NERC (45 days)	120%
8. Publish non-public on-site audit report to NERC (65 days)	120%
9. Percentage of Entities with a completed IRA	100 %
10. Publish internally completed assessment of Self-Certification/periodic data submittals	100%
11. Process incoming Possible Violations to NERC through webCDMS in 5 business days or less	100%
12. Control out-of-pocket expenses for on-site/off-site audits (contractor billings and travel)	150%
13. Increase outreach/assessment to maintain or improve protective relay misoperations success rate for 4Q 2015-3Q 2016	94.50%
14. Assure proper Cause Codes can be verified from Event Analysis Reports issued by SPP RE Registered Entities	100.00%
15. Complete 100% of outreach production goals with a stakeholder satisfaction rating ≥ 3	130%
ACTUAL WEIGHTED TOTAL	104.18%

2016 Goals and Achieved Performance

The following goals were outlined in the 2016 year-end report. Each of these is listed below with its status.

- 1. Develop and conduct an outreach effort for the CIP Version 5 transition, Low Impact requirements, that are effective April 1, 2017. SPP RE and the SPP RE Registered Entities will continue their involvement in the CIP Version 5 Transition Advisory Group (VTAG) and continue to keep the SPP membership up-to-date through the SPP CIP Working Group.**

Staff conducted intensive targeted outreach on the CIP V5 transition, visiting multiple Registered Entities on-site. About 25 Registered Entities benefited from this outreach. SPP RE continued its participation on the VTAG and gave updates to the CIPWG.

- 2. Achieve a favorable rating on all NERC and FERC spot checks.**

We have not received final reports on audits of SPP RE's registration process, compliance exception/FFT, and confidential information/conflicts of interest. Regarding the self-logging audit, NERC made several recommendations for improvement. However, SPP RE has only had one Registered Entity request self-logging.

- 3. Meet specific performance metrics and goals.**

Staff met 13 of the 15 goals.

- 4. Improve budget performance based on new SPP overhead charges and other budget adjustments approved for 2016.**

SPP RE improved its budget performance by converting the overhead charge to a primarily fixed charge.

- 5. Improve and increase monitoring of relay misoperation activity in association with SPP RTO and NERC through various techniques (monitoring, reporting, and outreach).**

SPP RE continued to work with and support the SPP RTO System Protection and Control Working Group (SPCWG) on a new white paper on "incorrect settings/logic/design errors" to be published in 2017. We worked with the SPCWG misoperation sub-group to review quarterly misoperations. SPP RE presents misoperations statistics at workshops and meetings of the SPP RE Trustees, SPP RTO Board of Directors, and Markets and Operations Policy Committee meetings. In 2016 SPP co-hosted a Misoperations Summit for 125 stakeholders.

- 6. Complete IRAs for all Registered Entities by the end of 2016.**

In 2015-2016, SPP RE completed 99 IRAs; this includes all Registered Entities for which SPP RE is responsible for leading oversight activities.

2017 Goals

1. Continue working with NERC and other Regional Entities to streamline and standardize CMEP processes through tools and initiatives such as an ERO-wide template for Registered Entity compliance oversight plans (based on their IRA)
2. Manage intense CIP V5 monitoring schedule in 2017 and possible influx of enforcement issues from the new standards
3. Continue focus on monitoring and mitigating relay misoperations
4. Continue targeted outreach to improve Registered Entity compliance programs, reduce enforcement issues, and achieve greater BES reliability
5. Ensure Registered Entities have remediated all Facility Ratings Alert discrepancies by the end of 2017
6. Achieve a favorable rating on all NERC and FERC spot checks

2016 SPP RE Annual Report

SPP RE Trustees

Jan. 30, 2017

Dallas, TX

Ron Ciesiel

SPP RE General Manager

2016 SPP RE Annual Report

- SPP RE staff metrics achievement = 104%
- Improved audit processes, resulting in decreased audit times and team sizes
- Targeted outreach on CIP V5/6 transition and misoperations
- Continued implementing risk-based processes: Inherent Risk Assessments, Internal Control Evaluations, Coordinated Oversight program
- 90% violations were self-identified, denoting strong compliance cultures
- System events at lowest level of severity
- All lines under the Facilities Ratings program have been assessed; almost all discrepancies mitigated
- Published three Regional Reliability Assessments
- Positive feedback from NERC and FERC observers of SPP RE audits
- Favorable ratings on annual stakeholder survey
- Operated under budget

2016 SPP RE Annual Report

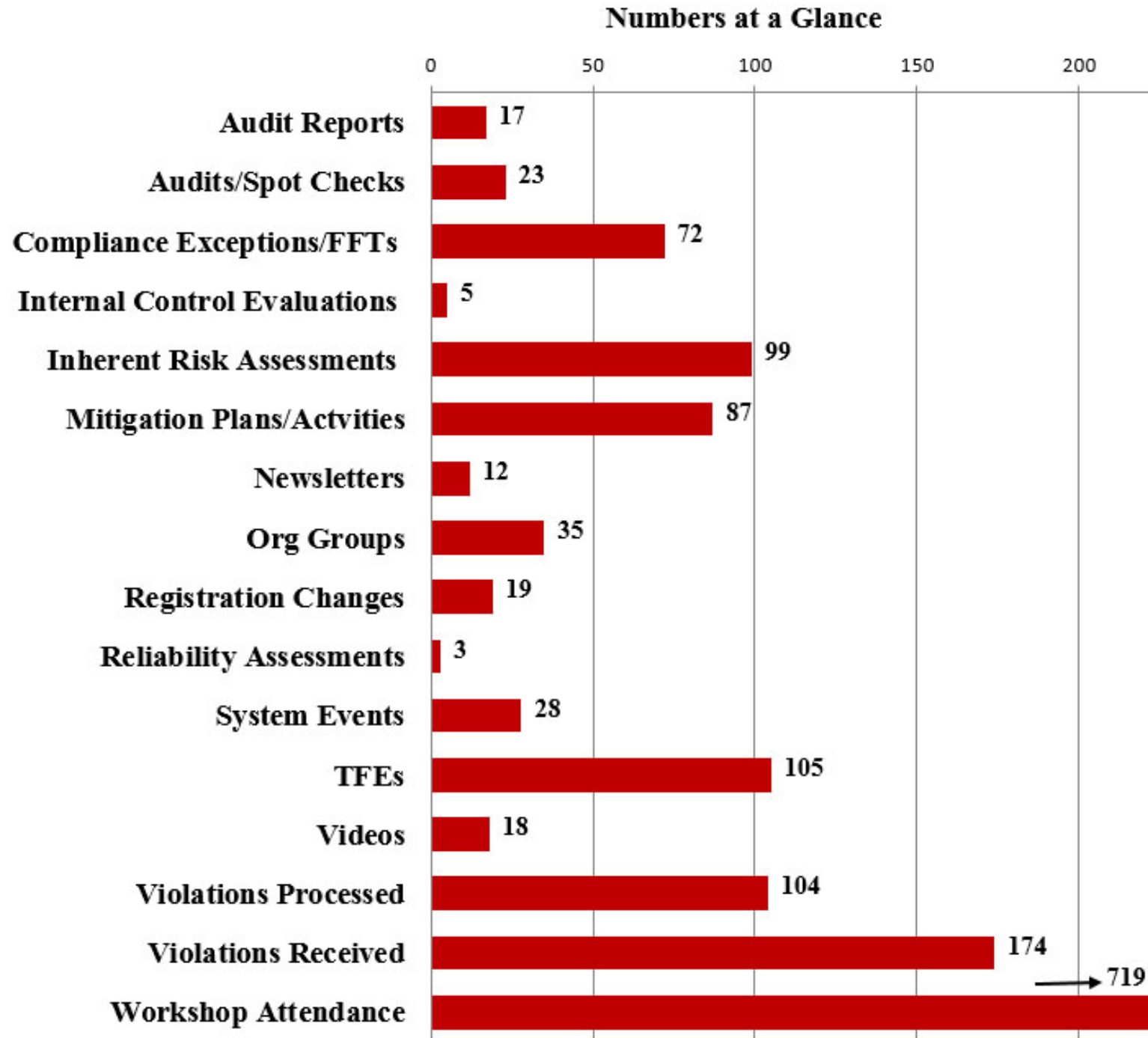


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CIP Update

January 30, 2017

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Effective April 1, 2017

- **CIP-003-6/Part 1.2**
(Low Impact BES Cyber System Cyber Security Policies)

- **CIP-003-6/Requirement R2**
(Low Impact BES Cyber System Cyber Security Plans)
 - **Attachment 1, Section 1** (Cyber Security Awareness)
 - **Attachment 1, Section 2** (Physical Security Controls) *
 - **Attachment 1, Section 3** (Electronic Access Controls) *
 - **Attachment 1, Section 4** (Cyber Security Incident Response) **

* Plans due 4/1/17. Implementation of plans deferred until 9/1/18.

** Includes first test of the Cyber Security Incident Response Plan

Effective April 1, 2017

- **CIP-010-2/Requirement R4**
(Transient Cyber Assets and Removable Media) *
 - **Attachment 1, Section 1**
(Transient Cyber Asset(s) Managed by the Responsible Entity)
 - **Attachment 1, Section 2**
(Transient Cyber Asset(s) Managed by a Party Other than the Responsible Entity)
 - **Attachment 1, Section 3**
(Removable Media)

* Applicable to High and Medium Impact BES Cyber Systems

CIP Revisions

- **CIP-003-7** (Revisions to “LERC”)
 - Passed 12/19/16 with (87.95% approval)
 - Next step: NERC Board of Trustees adoption
 - Must be filed at FERC by 3/31/17

- **CIP-003-7(i)**
(Protection for transient devices used at Low Impact BES Cyber Systems)
 - Draft 1 posted for comment and initial ballot
 - Ballot period closed 8 PM EST, 1/25/17
 - Standards, definitions, and Implementation Plan passed

Remote Access Study

- **NERC report to FERC by 4/1/17**
- **Conducting survey with audited Registered Entities**
 - **Using NERC-developed survey form**
 - **Review of Electronic Security Perimeters**
 - **Review of Interactive Remote Access architecture/controls**
 - **Review system-to-system communication controls**
 - **Evaluate controls mitigating 2015 Ukraine attack exploits**
 - **Firewall access summary**
 - **Conducted on-site with Registered Entity, separately from audit interviews**

Supply Chain Management

- **Standards Authorization Request accepted by the Standards Committee 12/14/16**
- **First draft posted for comments and initial ballot 1/19/17**
 - **45-day comment period through 3/6/17**
 - **Ballot pools forming through 8 PM EST 2/17/17**
 - **Balloting is typically last ten days of comment period**
- **Standard must be submitted to FERC by 9/27/17**

In the News

- **Ukraine**
 - **Transmission substation serving Kiev, Ukraine, de-energized 12/18/16**
 - **Outage lasted 75 minutes**
 - **Three transmission lines tripped off simultaneously**
 - **Impacted 100,000 – 200,000 people (one-fifth of Kiev)**
 - **Ukrenergo power company “99 percent” certain a deliberate attack caused the blackout**
 - **Other investigators not so sure**

In the News

- **Burlington, Vermont**
 - **DHS released Joint Analysis Report (JAR) about Grizzly Steppe, 12/29/16**
 - **E-ISAC issued request (RFI) for network traffic review**
 - **Burlington Electric reported possible Grizzly Steppe indicator found**
 - One PC, not connected to the SCADA network
 - ***Washington Post* reported Russian cyber attack of the US Electric Grid, 12/30/16**
 - **Report quickly debunked and retracted**
 - **Indicator was outbound access to an IP address in the JAR used for multiple web sites**

Violations since 7/1/16

Standard/Rqmt	Self-Report	Audit
CIP-002-5.1/R1		1
CIP-004-6/R2	2	
CIP-004-6/R4	1	
CIP-004-6/R5	3	
CIP-005-5/R1	1	5
CIP-005-5/R2	1	1
CIP-006-6/R1	1	
CIP-006-6/R2	1	
CIP-007-6/R1	2	
CIP-007-6/R2	4	
CIP-007-6/R3	2	
CIP-007-6/R4	2	
CIP-007-6/R5	5	
CIP-009-6/R1	1	
CIP-010-2/R1	4	2
CIP-011-2/R1	1	
Total	31	9

Events Update

January 30, 2017

Alan Wahlstrom

Lead Engineer

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SPP Regional Events (October 1-December 31)

- 6 events occurred in SPP region during Q4-16, compared to 2 in 2015
- All events were in lowest assignable risk category
 - Three category 1a. *Loss of three or more elements*
 - Three category 1h. *Partial loss of EMS*
- In 2016, SPP region experienced 15 reportable events
 - Compared to 10 in 2015

Event 1, Category 1h: **Loss of Data**

- Significant amount of data (~28%) failed in state estimator (STE) for SPP footprint
- Operator and support were unaware of the problem from 02:42 – 03:50
- Company STE and RTCA in SPP footprint were solving but using old data from 02:42 – 05:02
- Support staff restarted application and data was restored



Event 2, Category 1h: **Invalid State Estimator in SPP footprint**

- **11:18 STE goes INVALID**
- **11:49 – RTNET becomes VALID**
- **Brief network outage caused loss of transfer between data server and STE**



INVALID

Event 3, Category 1h: **Loss of Data**

- Significant amount of data (~28%) failed in STE for SPP footprint
- Support staff and operator become aware of the data transfer problem
- Support staff restarted application and data was restored
- 59 minute outage of STE



Event 4, Category 1a: **Breaker Failure Misoperated**

- Breaker failure relay tripped in error on load current
- Breaker Failure initiated tripping two 230/115 KV transformers, and a two 230 KV transmission line



Event 5, Category 1a: **Human Error**

- Electrician adding a breaker failure lockout to a relay.
- During testing the electrician mistakenly tripped breaker failure lockout relay for a breaker which was in-service
- One 230/115 KV transformer and two 230 KV lines were tripped



Event 6, Category 1a: **345 KV Transmission Line Tripped**

- 345 KV transmission line tripped
- Two 230 KV transmission line tripped
- Cause of trips is still undetermined

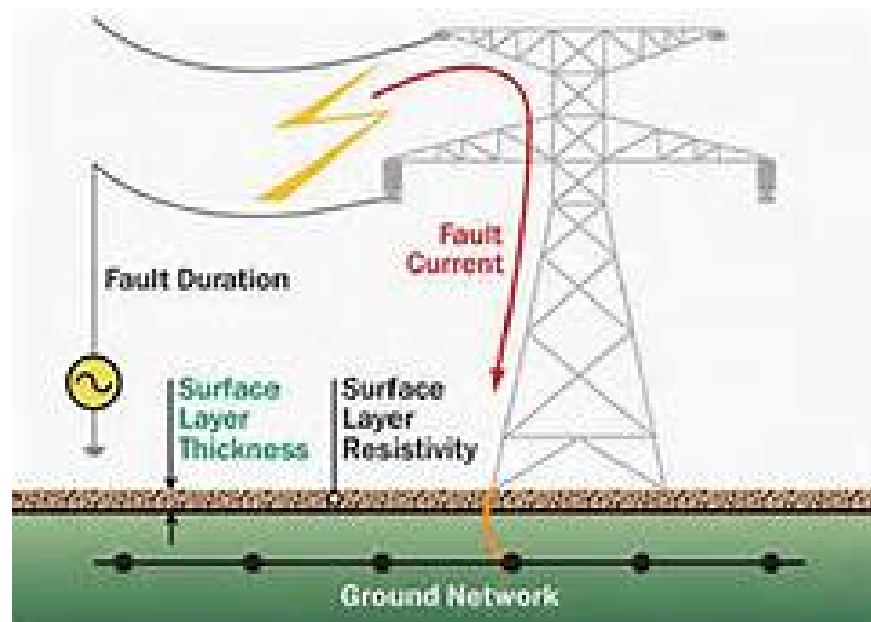
NERC LESSONS LEARNED

NERC Lesson Learned: DC grounds and AC Tied to DC Cause Multiple Relay Misoperations

- **Breaker status in a line relay momentarily changed state, indicating open breaker**
- **Line relay keyed a breaker-open transfer trip to the remote end due to this false breaker-open status**
- **This initiated a fail causing 6 other breakers to initiate**
- **Initial investigation indicated a strong negative ground on the 125 VDC system**
- **Then inadvertent connection between 24 VDC battery circuit and station annunciator 125 VDC common was identified**

NERC Lesson Learned: DC grounds and AC Tied to DC Cause Multiple Relay Misoperations

- A dc ground can cause a line relay to have a false-breaker-status indication, resulting in a relay misoperation



NERC Lesson Learned: **Failover** **Configuration Leads to Loss of EMS**

- Configuration settings of Registered Entity's EMS applications and tasks caused unintended automatic failovers to backup EMS servers multiple times in a row
- This set up a failover loop, hindering recovery efforts

```
#####  
# configuration files  
#####  
users = "T:\t1tbcoc\ems\7232\data\users.conf"  
groups = "T:\t1tbcoc\ems\7232\data\groups.conf"  
topics = "T:\t1tbcoc\ems\7232\data\topics.conf"  
queues = "T:\t1tbcoc\ems\7232\data\queues.conf"  
ac1_list = "T:\t1tbcoc\ems\7232\data\ac1.conf"  
factories = "T:\t1tbcoc\ems\7232\data\factories.conf"  
routes = "T:\t1tbcoc\ems\7232\data\routes.conf"  
orlpages = "T:\t1tbcoc\ems\7232\data\orlpages.conf"  
transport = "T:\t1tbcoc\ems\7232\data\transport.conf"  
filters = "T:\t1tbcoc\ems\7232\data\filters.conf"  
variables = "T:\t1tbcoc\ems\7232\data\variables.conf"  
channels = "T:\t1tbcoc\ems\7232\data\channels.conf"  
stores = "T:\t1tbcoc\ems\7232\data\stores.conf"  
#####  
# persistent storage  
#  
# store: directory to store persistent messages  
#####  
store = "T:\t1tbcoc\ems\7232\data\datastore"
```

NERC Lesson Learned: **Failover Configuration Leads to Loss of EMS**

- **Entities should**
 - Review failover configuration settings in EMS that could initiate an automatic failover to determine the value of the scheme
 - Remove schemes that are not necessary or could lead to a cascading failover scenario
 - Evaluate whether to allow these applications to fail in lieu of automatic failovers

NERC Lesson Learned: **Loss of ICCP due to Database Sizing Issue**

- During a network model update, a problem was caused by a combination of the number of points being requested by STE and the number of points available in ICCP
- STE update required an additional 13,000 points from ICCP
- This exceeded the maximum allowed size of the ENTRY table and caused the ICCP processes to abort

NERC Lesson Learned: **Loss of ICCP due to Database Sizing Issue**

- Database sizes need to be carefully monitored as a system is expanded
- Sizes should be large enough to accommodate all data being requested, not just what is currently being transferred

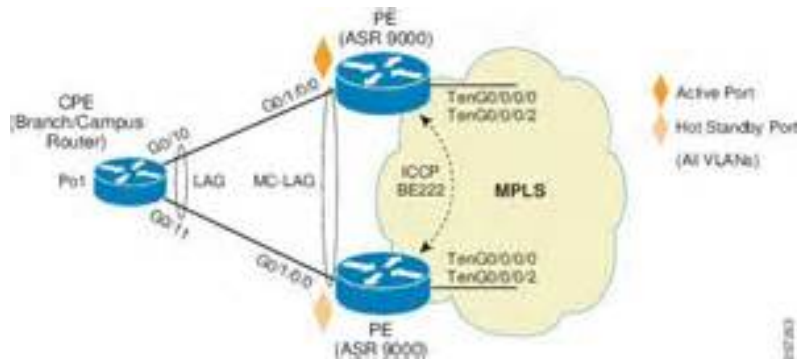


NERC Lesson Learned: **Loss of ICCP – Local Control Center Notifications**

- **Loss of ICCP connectivity at Entity A's control center resulted in a loss of STE at Entity B's control center**
- **Entity A's control center experienced multiple ICCP communication failures with external entities.**
- **These failures were the result of a scheduled patch update being applied on the control center ICCP firewall**

NERC Lesson Learned: **Loss of ICCP – Local Control Center Notifications**

- RCs should be encouraged to notify all BAs and TOPs in the area, not just those adjacent to entity that has lost ICCP
- This will better allow for other's EMS support teams to make appropriate adjustments to their systems quickly and accordingly



NERC Lesson Learned: **SCADA System Software Design Flaw Prevented Processing of Alarms and Events**

- Alarm was received in SCADA system from the field
- Operator entered comment to provide additional information regarding the alarm
- Comment was 179 characters - maximum number of allowable characters
- When rebooting alarm, it crashed every time from attempting to process the alarm note
- This filled the alarm processor queue and impacting system operator's ability to monitor and control transmission facilities

NERC Lesson Learned: **SCADA System Software Design Flaw Prevented Processing of Alarms and Events**

- Entering a comment to a system alarm is secondary function that proved to be a single point of failure
- Do not overlook what appears to be the less impactful parts of the system during testing, monitoring, and troubleshooting
- Be proactive about reviewing vendor patches, regardless of how insignificant they may appear.
- Subscribe to vendor notification lists and vendor user groups

NERC Facility Ratings January 2017

100% of high priority lines complete

100% of medium priority lines complete

99.2 % of low priority lines complete

One low priority line left with expected completion date of July 2017



Enforcement Update

January 30, 2017

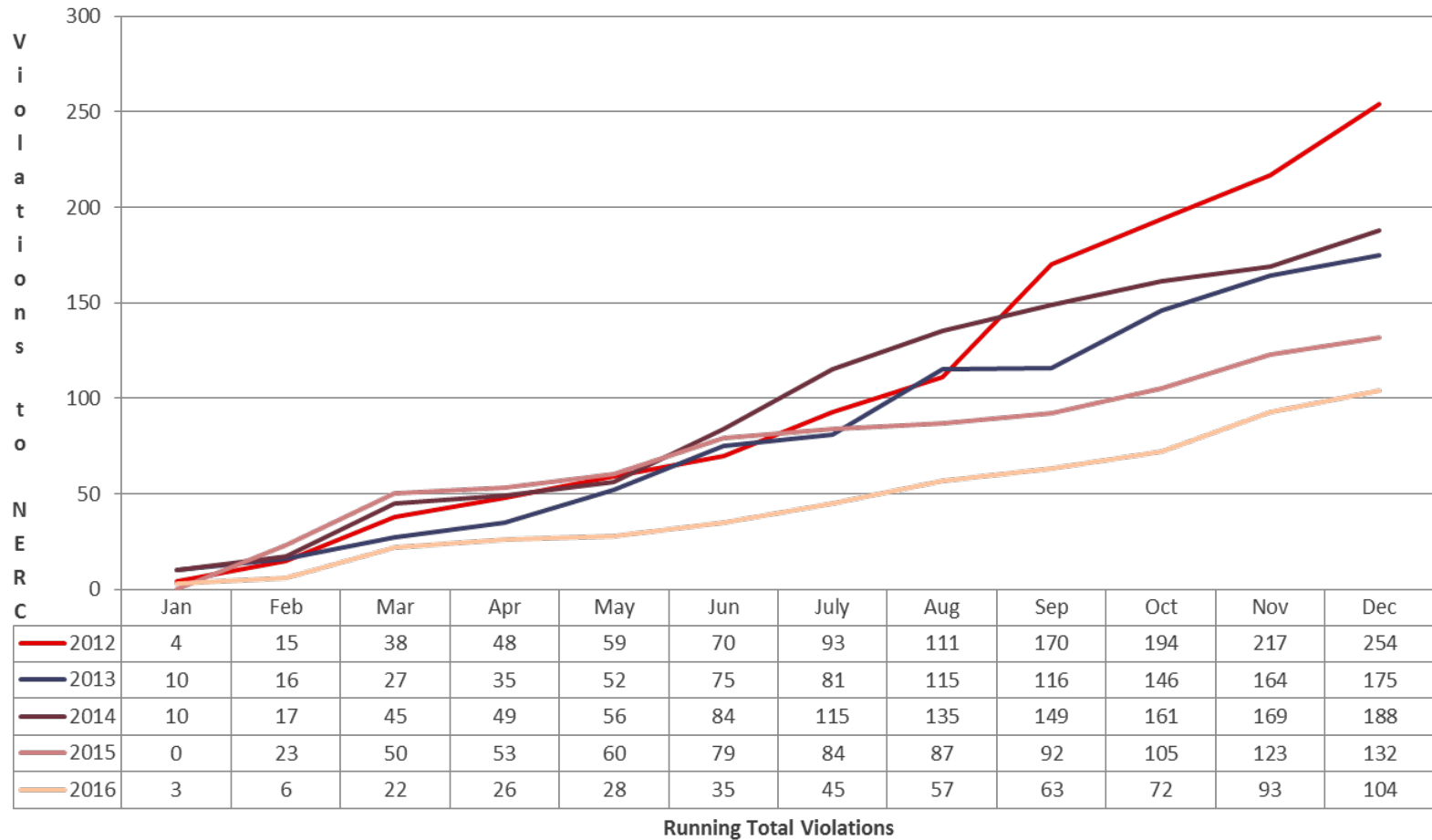
Joe Gertsch
Manager of Enforcement
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501.688.1672

Enforcement Activity Summary

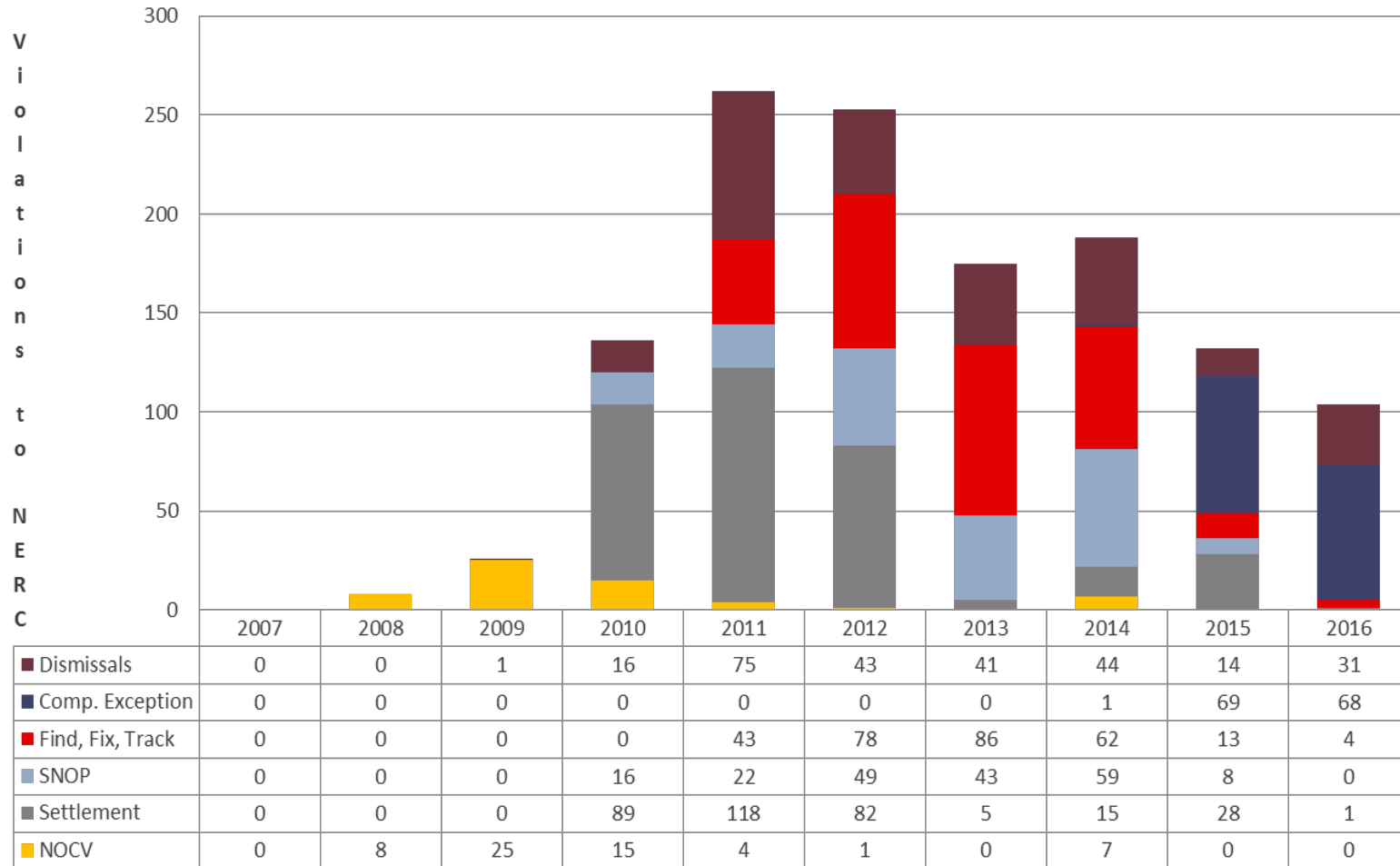
SPP RE Enforcement Activities December 31, 2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	First Quarter	Second Quarter	Third Quarter	October	November	December	Total 2016
Notice of Preliminary Screen Issued	-	-	-	-	-	-	-	121	89	11	27	115	17	3	1	174
Notice of Possible Violations Issued	6	56	132	254	239	173	189	107	71	7	14	29	76	15	0	141
Notice of Alleged Violation (NAVAPS)																
NAVAPS Issued	6	45	10	7	0	2	1	6	0	0	0	7	0	0	0	7
Notice of Confirmed Violation (NOCV)																
NOCV Sent to Entify/NERC	0	8	25	15	4	1	0	1	0	0	0	0	0	0	0	0
NOCV BOTCC Approved	0	7	11	29	4	1	0	1	0	0	0	0	0	0	0	0
Settlements / Full Notice of Penalty																
To NERC for Approval	0	0	0	89	118	52	5	15	28	0	0	1	0	0	0	1
BOTCC Approved	0	0	0	50	81	103	14	30	24	0	4	0	1	0	0	5
Settlements / Spreadsheet NOP																
To NERC for Approval	0	0	0	16	22	49	43	59	8	0	0	0	6	0	0	0
BOTCC Approved	0	0	0	0	38	49	65	46	8	0	0	0	0	0	0	0
Find, Fix, Track								+								
To NERC for Approval	-	-	-	-	43	78	86	62	13	1	1	2	0	0	0	4
BOTCC Approval	-	-	-	-	36	74	95	61	14	1	0	3	0	0	0	4
Compliance Exception	-	-	-	-	-	-	-	1	69	20	9	17	2	19	1	68
Dismissals																
To NERC/SPP RE SRT for Approval	0	0	1	16	75	43	41	44	14	1	3	8	7	2	10	31
NERC/SPP RE SRT Approved		0	1	16	75	43	41	44	14	1	3	8	7	2	10	31
Notice of Penalty																
Approved by FERC	0	5	13	57	180	184	141	118	15	16	0	0	0	1	0	17
Violations Awaiting NERC Approval																1
Active Violations - Caseload																154
Caseload Index (months)*																17.8

* Based on previous 12 months processing (104)

Enforcement Monthly Violation Processing



Enforcement Processing Methods



SPP RE Caseload – December 31, 2016

- 154 - Active SPP RE Violations
 - 26 - Settlement
 - 129 - Settlement Not Requested (NAVAPS/NOCV)
 - 31 – Multi Region Registered Entity (MRRE) - SPP RE Lead on 9
 - 54 – PRC-019, PRC-024, MOD-025
- 89 - 693 Violations
- 65 - CIP Violations
- Discovery Method
 - 39 - Audit
 - 68 - Self Report
 - 40 - Self Certification
 - 2 – Spot Check
 - 5 - Log

Caseload Aging

- SPP RE – 132 violations
- Average age - 237 days

<u>Age (days)</u>	<u>Violations</u>
> 300	31
201 – 300	5
101 – 200	42
51 – 100	52
1 - 50	2

- Pre-2015 violations: 13
- MRRE: 22 violations, average age - 570 days

SPP RE 2016 Violation Dismissals

Consolidation with another violation	8
NERC V3 – V5	2
Self-Report wrong standard and/or requirement	0
Provided exculpatory evidence	4
Incorrect Interpretation of Standard	<u>17</u>
Total	31

December Mitigation Plan Summary

- **Mitigation Plan Status (month/year)**

Submitted	18/82
Accepted	17/77
Certified Complete	7/39
Completion Verified	3/47
Mitigating Activity Completed	3/40
- **Active Violations with no Mitigation Plans**

Initiated	50 (26)
-----------	---------

Active Violations without Mitigation Plans

- Discovery Method

Compliance Audit	6
Spot Check	2
Self- Certification	15
Self-Report	26
Log	1

- Average age - 127 days

<u>Age (days)</u>	<u>Violations</u>
> 300	2
201 – 300	1
101 – 200	21
51 – 100	24
1 - 50	2



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General Manager's Report

SPP RE Trustees

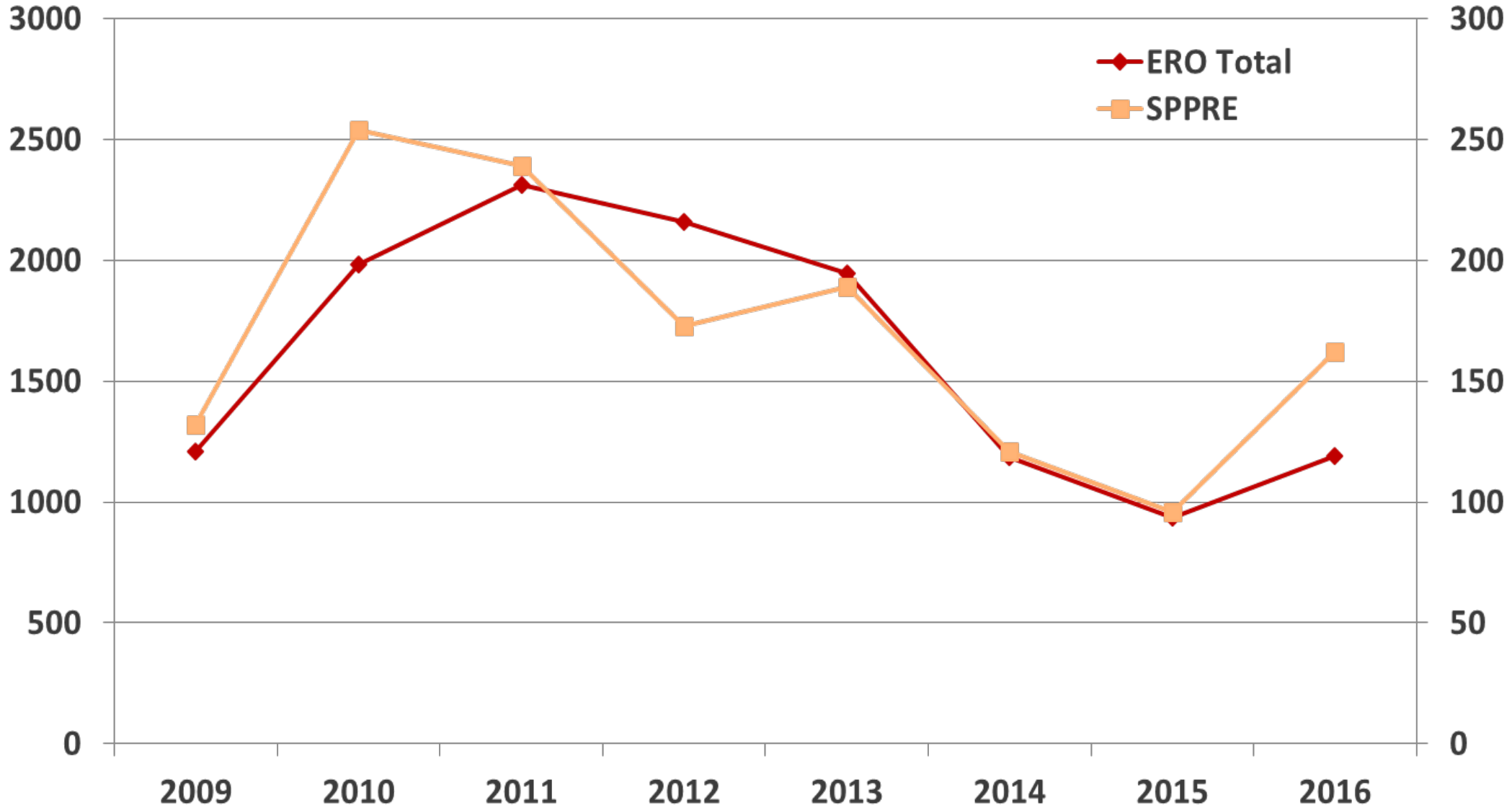
Jan. 30, 2017

Dallas, TX

Ron Ciesiel

SPP RE General Manager

Violations by Year



Most Violated Standards

Based on rolling 12 months through 12/31/16 [Represents ~ 85% of total violations]

SPP RE Rank	Standard	Description	Violations Current Period	Violations Previous Period	△	Risk Factor
1*	MOD-025	Generator Capability Testing	34	0	+34	Medium
2	PRC-024	Generator Relay Settings (Hz & V)	29	0	+29	Med./Lower
3*	PRC-019	Generator Regulating Controls	18	0	+18	Medium
4*	PRC-005	Protection System Maintenance	16	8	+8	High/Med.
5*	CIP-007	Systems Security Management	10	9	+1	Medium
6*	VAR-002	Network Voltage Schedules	8	5	+3	Med./Lower
7*	CIP-005	Electronic Security Perimeters	8	9	-1	Medium
8*	FAC-008	Facility Ratings	6	4	+2	Med./Lower
9*	CIP-004	Personnel & Training	5	4	+1	Med./Lower
10*	CIP-003	Cyber Security Controls	3	1	+2	Med./Lower
	All	SPP RE Top 10 Total Incoming	137	40	+97	

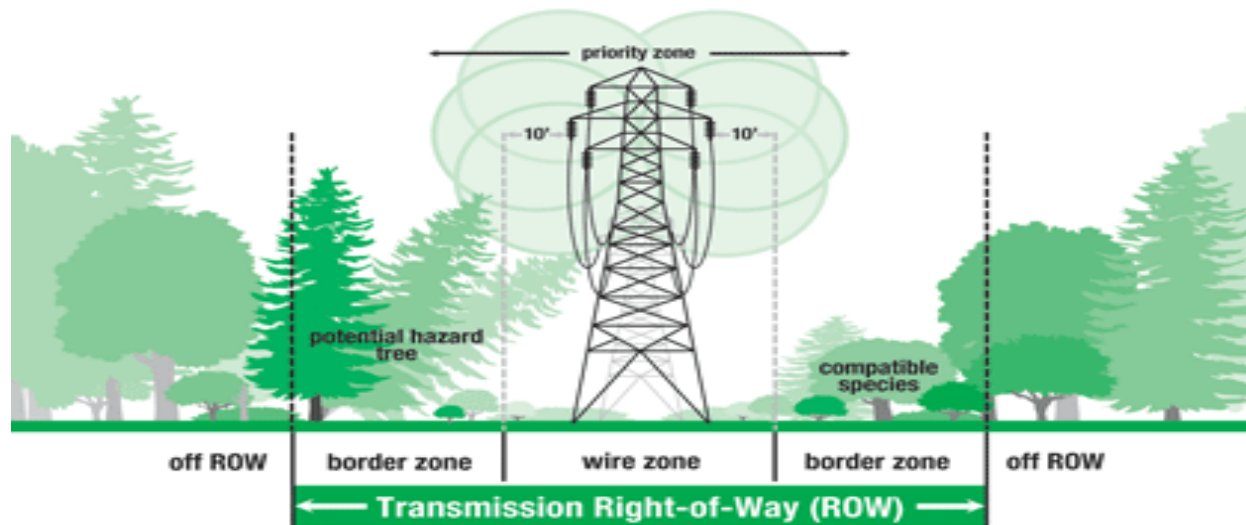
The current period is the most recent 12 months.

The previous period is the previous 12 months.

* 2016 NERC Top 10; MOD-025 and PRC-019 reported in NERC Top 10 as of November 1, 2016

Vegetation Contacts

	<u>REPORTABLE</u>	<u>ACTIONABLE</u>
NERC (Q3-2016 LAST OFFICIAL REPORT)	Q3-2016	Q3-2015
SPP RE (Q4-2016 LAST OFFICIAL REPORT)	Q4-2015	Q3-2010

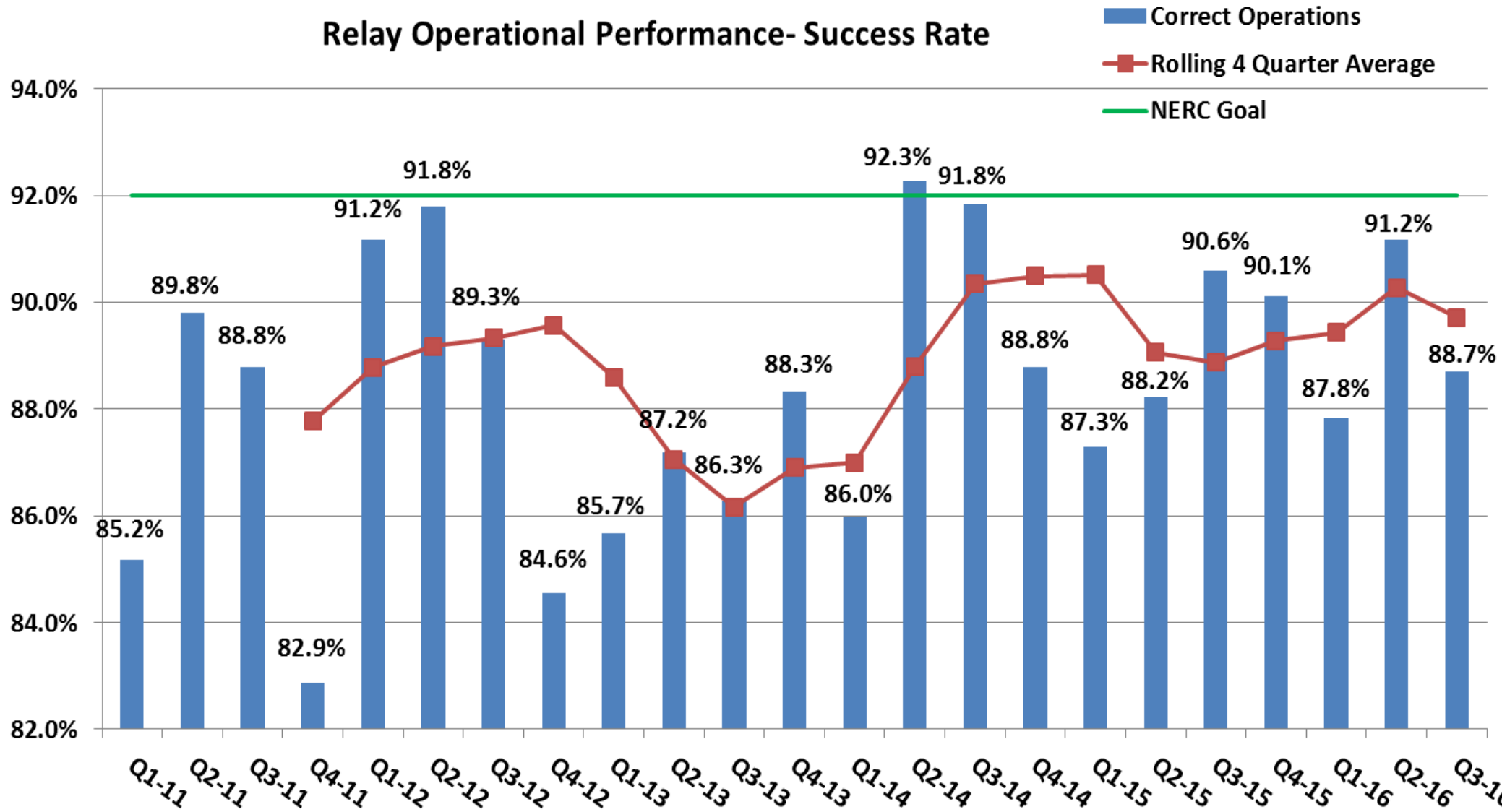


Inherent Risk Assessment Results

- Inherent Risk Assessments (IRA) are a new tool REs use to develop a compliance risk profile for each Registered Entity
 - 18 ERO-wide risk factors are used to develop IRAs
 - More info in new *ERO Enterprise Guide for Compliance Monitoring*
- In 2015-2016, SPP RE completed 99 IRAs
 - This includes all Registered Entities for which SPP RE is responsible for leading oversight activities

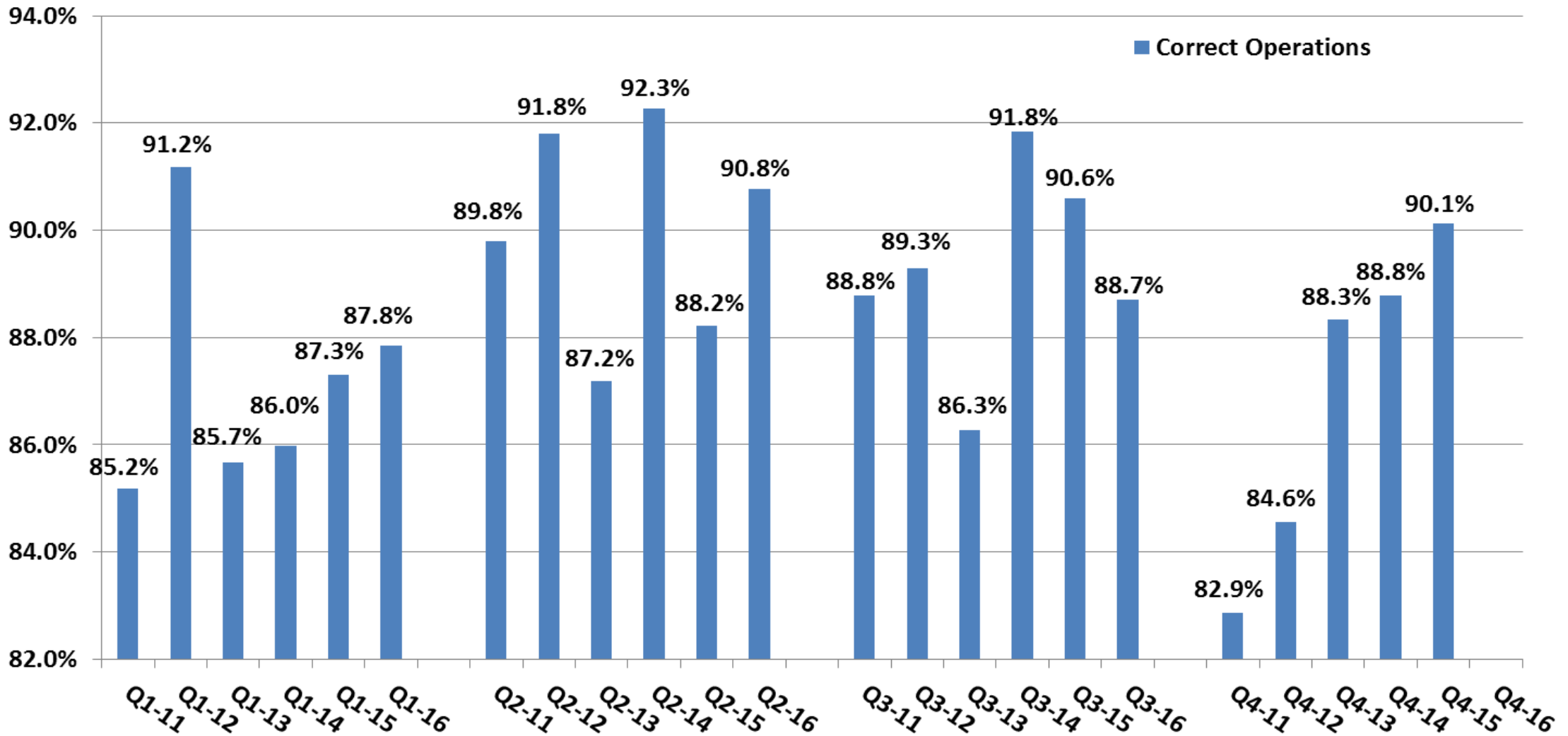
SPP RE Misoperation Report as of Q3-16

Relay Operational Performance- Success Rate



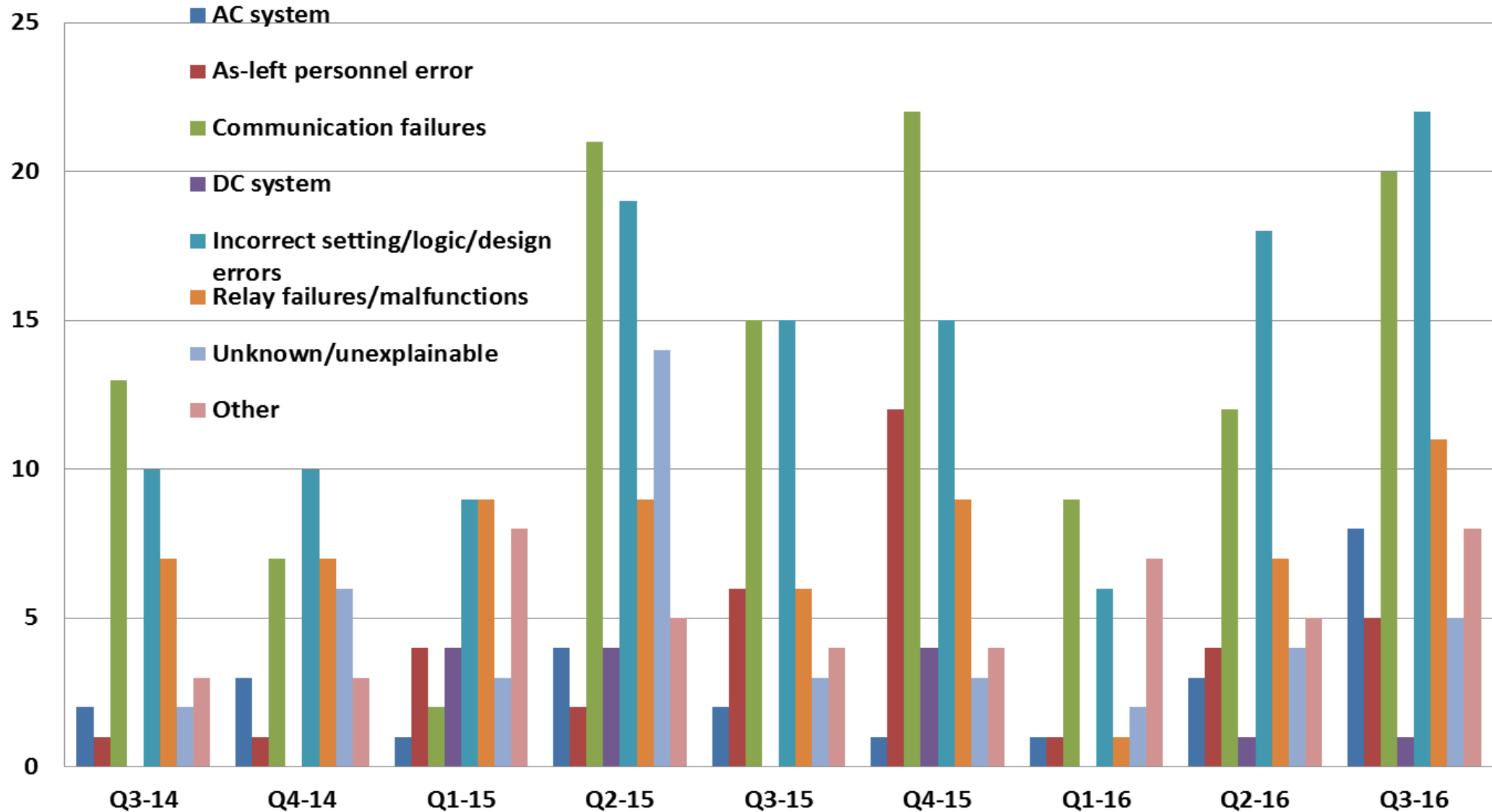
Relay Operation Success Rate (Quarter Grouping)

Correct Operations
Relay Operational Performance- Success Rate



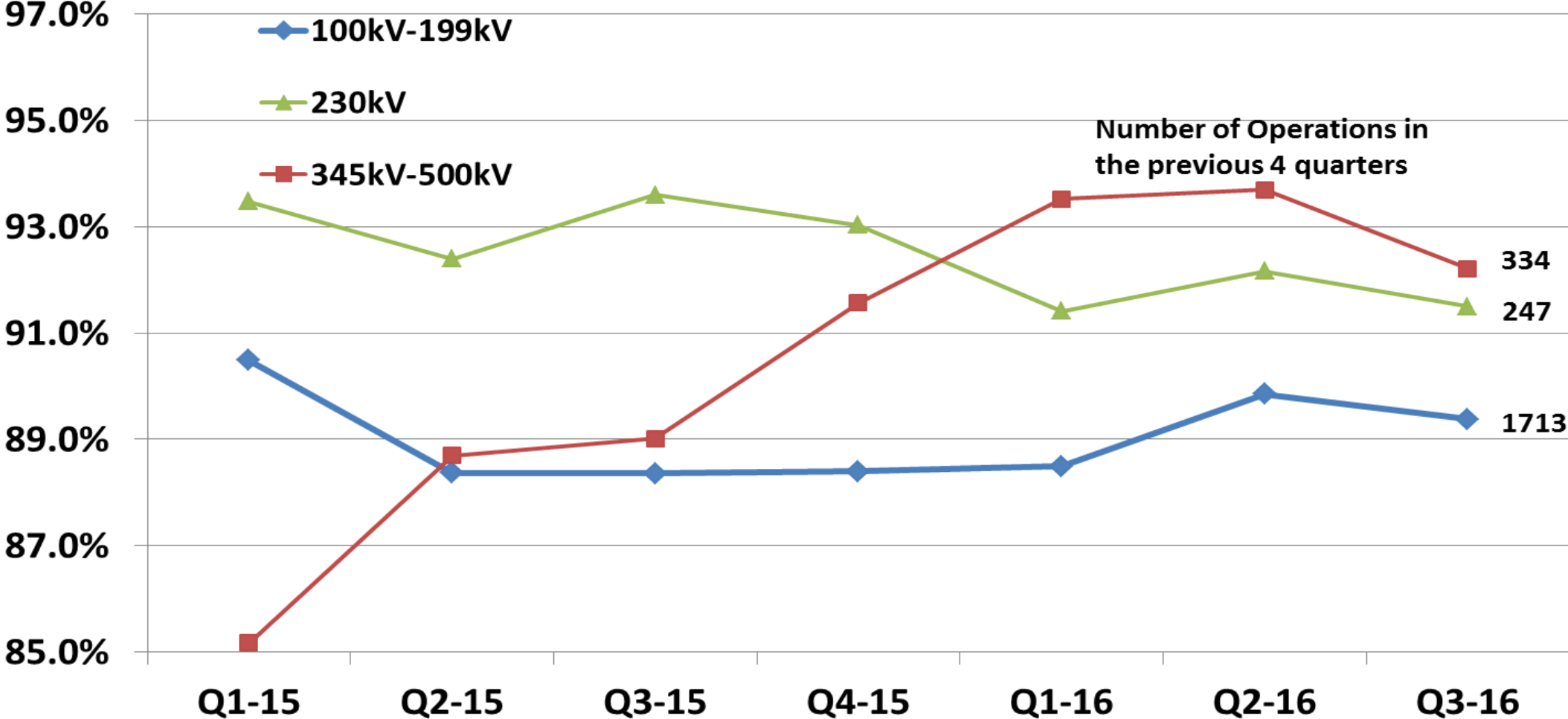
Causes of Misoperations Q3-14 to Q3-16

Cause(s) of Misoperations



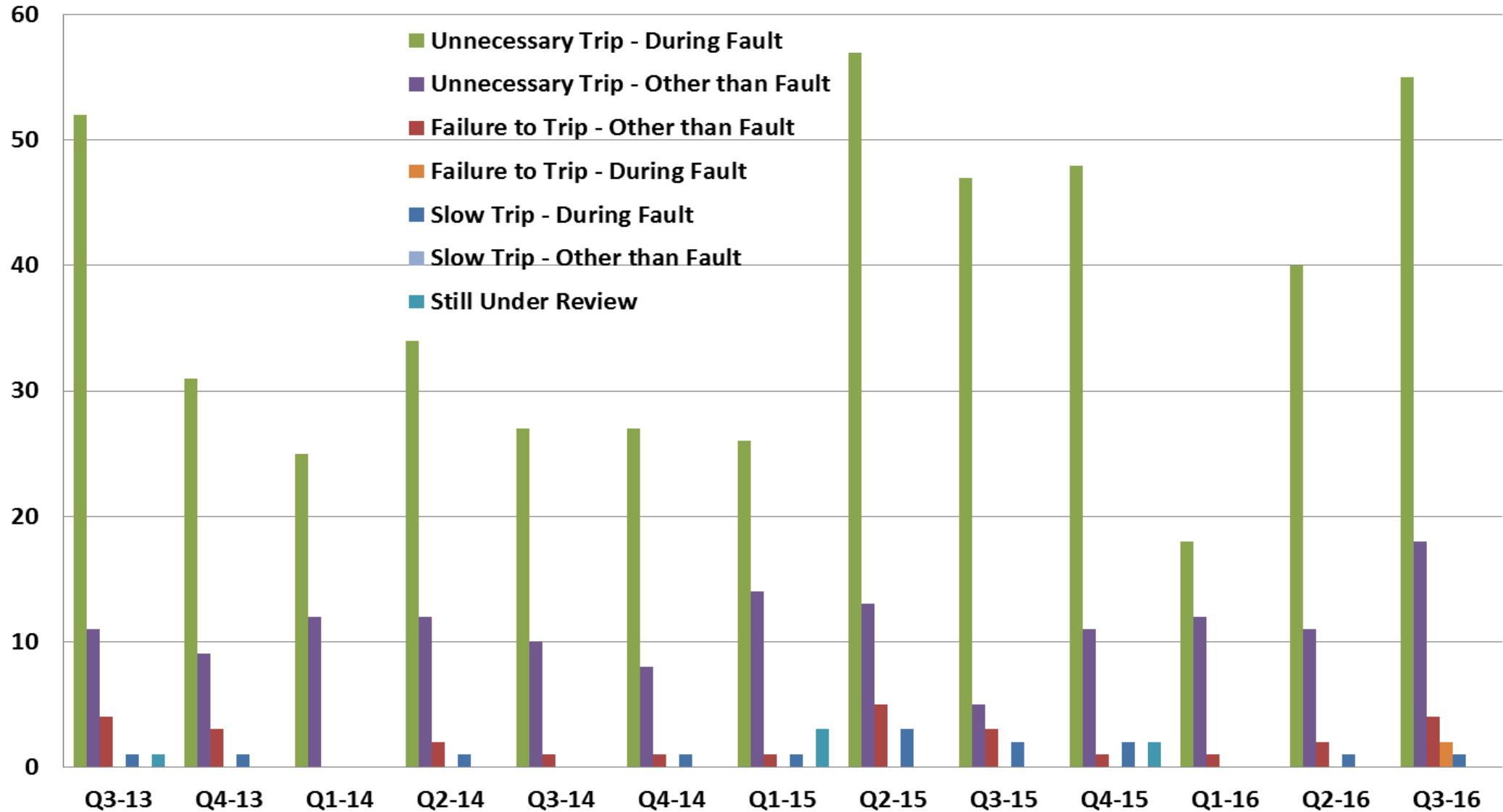
Success Rate by Voltage Category

Rolling 4 Quarter Operation Success Rate by Voltage Category
SPP RE
Ending Third Quarter 2016



Misoperations by Type

Misoperation Category



New Standards: January 1, 2017

- [IRO-010-2 Reliability Coordinator Data Specifications and Collection \(Requirements R1 and R2\)](#)
- [TOP -003-3 Operational Reliability Data \(all Requirements except R5\)](#)

New Standards: April 1, 2017

- CIP-003-6-Cyber Security-Security Management Controls (Requirements 1.2-2)
- CIP-010-2 – Cyber Security Configuration change Management and Vulnerability Assessments (Requirement 4)
- EOP-004-3 – Event Reporting
- EOP-010-1 — Geomagnetic Disturbance Operations
- EOP-011-1 – Emergency Operations
- FAC-010-3 – System Operating Limits Methodology for the Planning Horizon

New Standards: April 1, 2017

- [FAC-011-3 – System Operating Limits Methodology for the Operations Horizon](#)
- [IRO-001-4 – Reliability Coordination: Responsibilities](#)
- [IRO-002-4 – Reliability Coordination: Monitoring and Analysis](#)
- [IRO-008-2 – Reliability Coordinator Operational Analyses and Real-time Assessments](#)
- [IRO-010-2 – Reliability Coordinator Data Specification and Collection \(Requirement R3\)](#)
- [IRO-014-3 – Coordination Among Reliability Coordinators](#)

New Standards: April 1, 2017

- [IRO-017-1 – Outage Coordination](#)
- [MOD-029-2a – Rated System Path Methodology](#)
- [MOD-030-3 – Flowgate Methodology](#)
- [PRC-010-1 – Undervoltage Load Shedding](#)
- [PRC-015-1 – Remedial Action Scheme Data and Documentation](#)
- [PRC-016-1 – Remedial Action Scheme Misoperations](#)
- [PRC-017-1 – Remedial Action Scheme Maintenance and Testing](#)

New Standards: April 1, 2017

- [PRC-023-4 – Transmission Relay Loadability](#)
- [TOP-001-3 – Transmission Operations](#)
- [TOP-002-4 – Operations Planning](#)
- [TOP-003-3 – Operational Reliability Data \(Requirement R5\)](#)

New Standards: April 2, 2017

- PRC-004-5(i) – Protection System Misoperation Identification and Correction
- PRC-010-2 – Undervoltage Load Shedding

New Standards: July 1, 2017

- CIP-004-6-Cyber Security – Personnel & Training (Requirements 2.3,4.3, 4.4)
- CIP-006-6-Cyber Security - Physical Security of BES Cyber Systems (Requirement 3.1)
- CIP-008-5-Cyber Security – Incident Reporting and Response Planning (Requirement 2.1)
- CIP-009-6-Cyber Security – Recovery Plans for BES Cyber Systems (Requirement 2.1-2.2)
- CIP-010-2-Cyber Security Configuration Change Management and Vulnerability Assessments (Requirement 3.1)

New Standards: July 1, 2017

- [MOD-033-1 — Steady-State and Dynamic System Model Validation](#)
- [TPL-007-1 Transmission System Planned Performance for Geomagnetic Disturbance Events](#)

New Standards: October 1, 2017

- [COM-001-3 Communications](#)

New Standards: January 1, 2018

- [PRC-026-1 Relay Performance During Stable Power Swings \(Requirement1\)](#)

SPP RE Financial Report

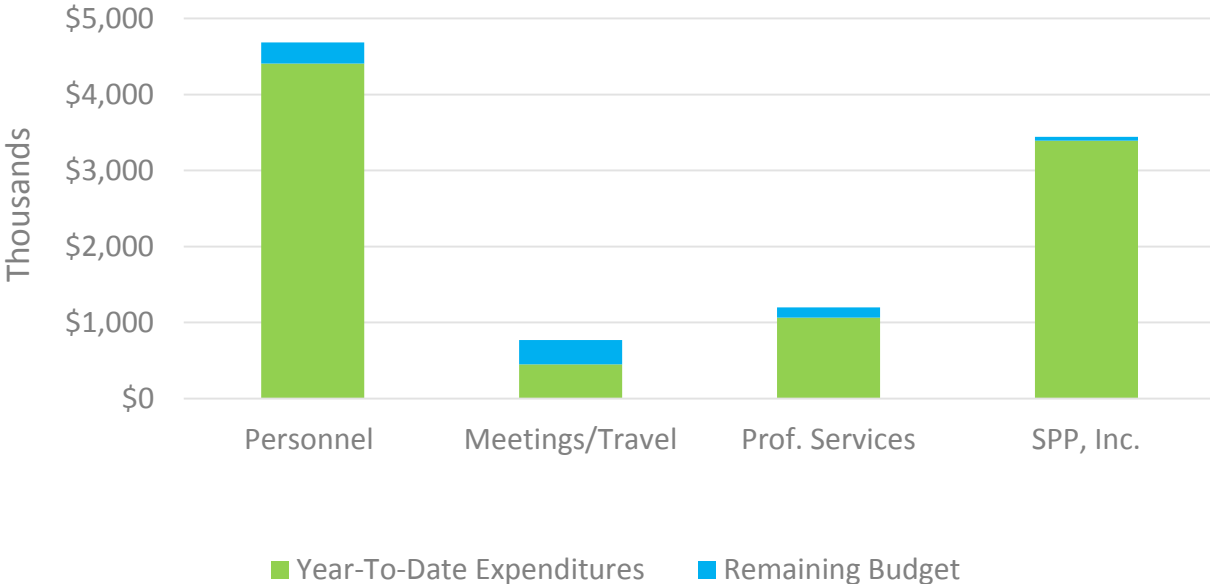
January 30, 2017

Debbie Currie
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Process Improvement
dcurrie.re@spp.org
501.688.8228



2016 Year-End Actuals vs. Budget

- Total expenses ~\$783k under budget
 - Personnel expenses ~\$278k under budget
 - Meeting/travel expenses ~321k under budget
 - Professional services ~\$136k under budget
 - SPP, Inc. overhead charge ~\$48k under budget



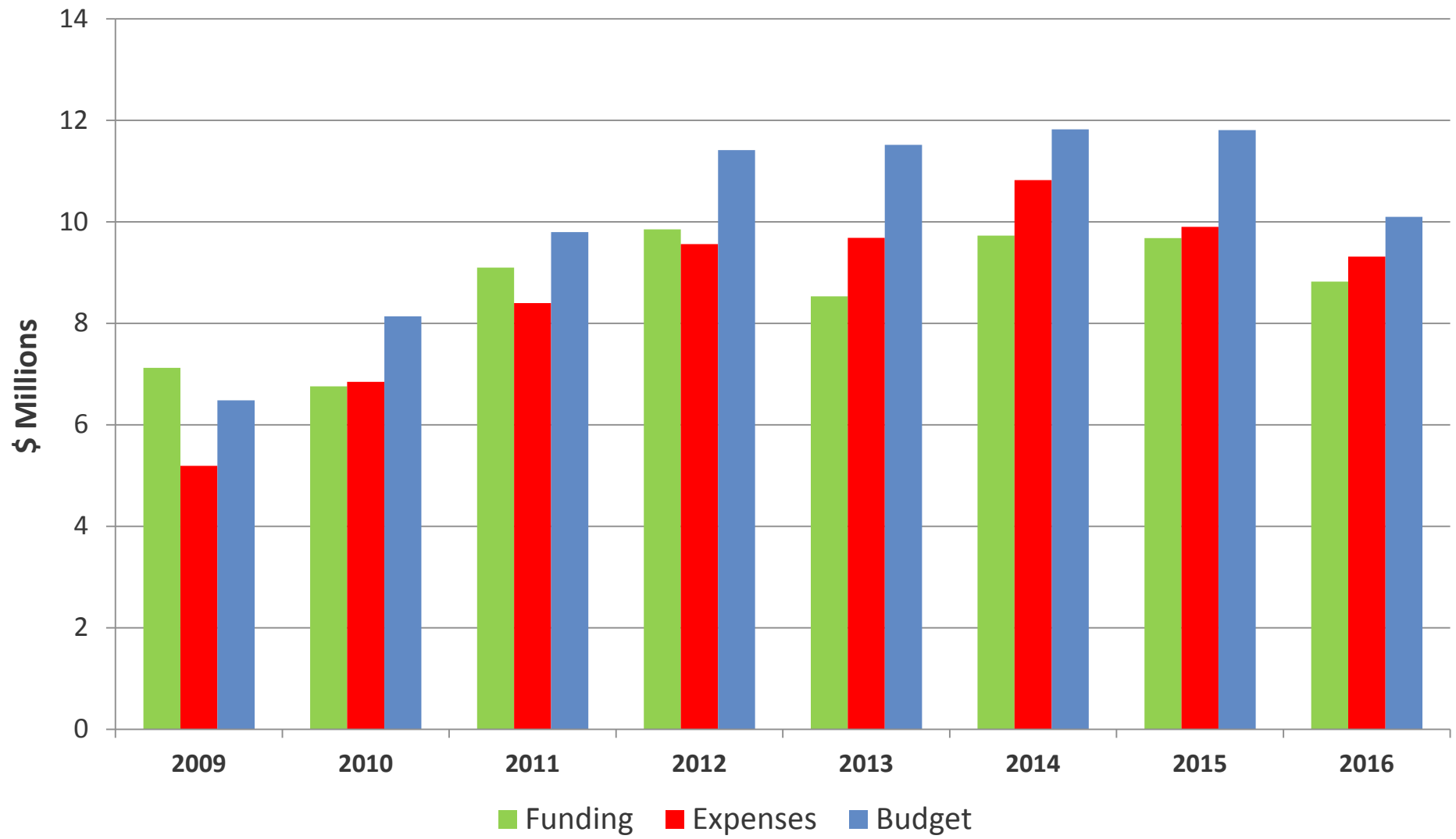
Overview

- **SPP ended 2016 with three open staff positions**
 - **Drives a large percentage of actual-to-budget variance**
- **Contractor/consultant/professional service costs below budget**
 - **4 CIP audits delayed to 2017**
- **Implementation of risk-based monitoring**
 - **IRAs led to a change in audit method**
 - **4 O&P off-site audits became spot checks**

Overview, cont.

- **Engineering Data Validation tool**
 - **New consultant hired in late 2016**
 - **Project completion projected in October 2017**
- **SPP, Inc. charge changed from a 100% variable rate tied to SPP RE staffing level to a mostly fixed charge**

Budget, Expenditures and Assessments



2017 Budget Highlights

- 2017 budget of \$10.9 million is ~7.6% more than 2016 budget of \$10.1 million
- Major contributors to budget increase include:
 - Additional Trustee
 - 4 CIP onsite audits carried over from 2016
 - Cost partially offset by 3 MRRE CIP Audits; SPP RE not lead region
 - Carryover for Engineering Data Tool completion
 - Increased 1.0 FTE in RAPA program shared staff
- Stable SPP, Inc. charge; significant variances greatly reduced

2018 Budget Timeline

- Internal work begins early February
- Preliminary budget presented at April Board of Trustees meeting
- Budgets presented to NERC Finance Committee and FERC in late May
- Final budget presented at Trustee meeting in June
- Submitted to NERC 1st week of July

SOUTHWEST POWER POOL REGIONAL ENTITY

STATEMENT OF ACTIVITIES

2016 DECEMBER YTD DRAFT (UNAUDITED)

	2016 DEC YTD ACTUAL	2016 DEC YTD BUDGET	VARIANCE
<i>(In Whole Dollars)</i>			
Funding			
ERO Funding	8,626,751	8,626,751	-
Penalty Sanctions	193,000	193,000	-
Total SPP RE Funding	8,819,751	8,819,751	-
Testing Fees	-	-	-
Workshops	-	-	-
Interest	4,182	-	4,182
Miscellaneous	-	-	-
Total Funding (A)	8,823,933	8,819,751	4,182
Expenses			
Personnel Expenses			
Salaries	3,585,977	3,896,492	(310,515)
Payroll Taxes	201,851	298,082	(96,231)
Benefits	484,678	333,564	151,114
Retirement Costs	133,422	155,860	(22,438)
Total Personnel Expenses	4,405,928	4,683,997	(278,070)
Meeting Expenses			
Meetings	91,942	90,000	1,942
Travel	356,953	680,200	(323,247)
Conference Calls	-	-	-
Total Meeting Expenses	448,895	770,200	(321,305)
Operating Expenses			
Contracts & Consultants	465,367	965,042	(499,675)
Office Rent	-	-	-
Office Costs	11,085	8,000	3,085
Administrative Costs	-	-	-
Professional Services	588,654	153,450	435,204
Computer Purchase & Maint.	-	-	-
Depreciation	-	-	-
Miscellaneous/ Contingency	-	74,445	(74,445)
Total Operating Expenses	1,065,106	1,200,937	(135,831)
Total Direct Expenses	5,919,929	6,655,134	(735,206)
SPP Inc. Indirect Expenses	3,392,692	3,440,685	(47,993)
SPP RE Indirect Expenses	-	-	-
Total Indirect Costs	3,392,692	3,440,685	(47,993)
Total Expenses (B)	9,312,621	10,095,819	(783,199)
Net Change in Assets (A-B)	(488,688)	(1,276,068)	787,381
Fixed Assets			
Depreciation	-	-	-
Computer & Software CapEx	-	-	-
Furniture & Fixtures CapEx	-	-	-
Equipment CapEx	-	-	-
Leasehold Improvements	-	-	-
Increase/(Decrease) in Fixed Assets (C)	-	-	-
Total Budget (Expenses plus Incr (Dec) in Fixed Assets (B+C))	9,312,621	10,095,819	(783,199)
Change in Working Capital (Total Funding less Total Budget) (A-B-C)	(488,688)	(1,276,068)	787,381
FTEs*	28.7	32.3	(4)

Outreach Update

SPP RE Trustees Meeting

Jan. 31, 2017

Dallas, TX

Emily Pennel

Outreach Coordinator, SPP RE Trustees Secretary

Outreach

- Workshops
 - Mar. 28-29, Spring 2017 Workshop: Little Rock
 - June 27, CIP 2017 Workshop: Little Rock
 - Oct. 24-25, Fall 2017 Workshop: Dallas
- Plan to add “open mic” calls in 2017 for Registered Entities to discuss questions/concerns with RE staff
 - No compliance implications

March Workshop Topics

- CIP-014: What to Expect – *SPP RE staff*
- Misoperations White Paper & Activities - *SPCWG & RCWG*
- Internal Controls - *Cleco*
- O&P Audit Success - *Independence*
- North American Generator Forum Update - *NAGF*
- Upcoming Standards – *SPP RE staff*
- 9 break-out sessions
 - 3 hours on CIP (recent violations, low impact, new/revised CIP standards)
 - 3 hours for new people (Enforcement, webCDMS/CMEP tools, CMEP 101)
 - Evidence, MRRE/Registration/Control Centers, IRAs/18 Risk Factors

Methods for Establishing IROLs Task Force (MEITF)

The PC reviewed Project 2015-09, in which the standard drafting team (SDT) began revisions to certain FAC standards with the purpose of providing greater clarity and consistency in the establishment of SOLs and IROLs. The SDT has requested the technical expertise of the NERC PC and OC in developing materials to support this effort focused on stability-related operating limits. The scope document explains in detail the focus areas, goals, and objectives of the newly proposed task force.

- PC approved motion to approve task force that will report to the OC and PC.

Essential Reliability Services Sufficiency Guidelines White Paper

Reviewed ERS Working Group (ERSWG) and their effort to identify, evaluate, and develop “Sufficiency Guidelines” for each quantifiable measure. The ERSWG developed the white paper, which is focused on methods to develop Sufficiency Guidelines, and will produce a final report with evaluation and refinement of the Sufficiency Guidelines for approval by the NERC Board of Trustees in December 2017. The Sufficiency Guidelines are processes rather than specific values as the need for frequency response, generation ramping, and voltage tend to be specific to the characteristics of particular areas, balancing areas, or interconnections.

- PC approved motion to accept the ERS Sufficiency Guidelines White Paper

Distributed Energy Resources Report

Reviewed the effort by the DERTF to create a report that discusses the potential reliability risks and mitigation approaches for increased levels of DERs on the bulk power system (BPS). PC suggested that any guidelines that comes out of NERC should not (1.) increase costs or (2.) overstep state authority.

- PC approved the motion to approve the DER Report.

Reliability Guideline: PMU Placement and Installation

The PC was provided an overview on this Reliability Guideline, which is intended to address recommended practices for placement of Phasor Measurement Units (PMUs) and collection of synchronized phasor measurement (“synchrophasor”) data. It is meant to provide utilities with existing synchrophasor networks as well as utilities exploring synchrophasor capability with sufficient technical basis to make efficient and economical placement decisions. The strategies set forth in this Reliability Guideline center around the needs of the applications for which the data is expected to be used. The document is structured with a prioritization framework to maximize the use of PMU placement.

- PC approved the motion for approval and final posting of the PMU Placement and Installation Reliability Guideline.

Reliability Guideline: Reactive Power Planning

The PC reviewed the Reactive Power Planning Reliability Guideline, which provides strategies and recommended practices for reactive power planning and voltage control. The guideline will provide utilities with guidance and direction related to the modeling, study, and placement of reactive power resources in

support of robust voltage profiles. The strategies set forth in this Reliability Guideline center around the need for static and dynamic reactive power resource planning and operational planning, as outlined in relevant NERC Reliability Standards. In addition, this Reliability Guideline aligns with the NERC's mission of improved reliability through sharing industry practices for planning and operating the bulk power system. The Reliability Guideline applies primarily to Planning Coordinators, Transmission Planners, Transmission Operators, Generator Operators, Generator Owners, and Reliability Coordinators. This draft Reliability Guideline was approved by the PC in March 2016 to post for industry comment. Comments were reviewed by the SAMS and substantial changes made in response to the comments received.

- PC approved the motion for approval and final posting of the Reactive Power Planning Reliability Guideline.

Reliability Guideline: Modeling Distributed Energy Resources in Dynamic Load Model

PC discussed the Reliability Guideline that partially addresses the proliferation of distributed energy resources (DER), Transmission Planners must adapt models, and modeling practices to account for and differentiate end use loads and the offset in net demand by these resources. In the past, and at lower penetrations of DER integrating into the distribution system, net load reduction has been used. This assumes the same load composition for these different demand levels; however, it is well understood and expected that net load reduction is actually a result of the same or greater demand with an offset due to some level of distributed energy resources. However, these practices are not sustainable moving forward as the distribution system continues to integrate more DER. This draft Reliability Guideline was approved by the PC in September 2016 to post for industry comment. Comments were reviewed by the LMTF and substantial changes made in response to the comments receive.

- Motion for approval and final posting of the Modeling Distributed Resources in Dynamic Load Models Reliability Guideline was approved by the PC.

Reliability Guideline: Developing Load Model Composition Data

This Reliability Guideline is intended to provide Transmission Planners (TPs) and Transmission Owners (TOs) with technical guidelines and reference material for developing reasonable and suitable load composition data for dynamic load models used in stability simulations. This guideline focuses primarily on the load composition aspect of dynamic load modeling, and also describes some aspects of dynamic load modeling such as motor performance, protection modeling, or performing sensitivity studies. It is meant to provide insights and examples of how to develop load model composition data from various data sources, classify that data, and convert that information into suitable load model parameter values.

- Motion for approval to post the draft Reliability Guideline for a 45-day comment period was approved by the PC.

Reliability Assessment Subcommittee (RAS)

Phil Fedora (RAS Chair) reviewed the status of RAS activities in 2016 and also discussed the development of the proposed 2017 Long-Term Reliability Assessment (2017 LTRA) data request and schedule. This

included a schedule for completion of the 2016 NERC Probabilistic Assessment, the Reliability Assessment Guidebook update, and recent coordination between the PAS and the RAS.

John Moura (NERC) requested committee members to go back to their organizations and see if there are subject matter experts to help with this effort in examining resource adequacy; specifically, reserve margins.

Probabilistic Assessment Working Group (PAWG)

The PC reviewed the scope and the primary function of a new working group proposal. The Probabilistic Assessment Working Group (PAWG) will report to the RAS and further advance the work initiated by the Generation & Transmission Reliability Planning Models Task Force (GTRPMTF) and the Probabilistic Assessment Improvement Task Force (PAITF). The scope of activities includes identifying improvement opportunities for Probabilistic Resource Adequacy Assessment (PRAA), recommending common data collection approaches to support a robust NERC PRAA, and to develop technical document(s) regarding reliability measures for PRAA.

- Motion for approval to establish the PAWG, as a working group under the RAS was approved.

Geomagnetic Disturbance Task Force (GMDTF)

The GMDTF Chair summarized what was presented during the joint OC/PC session. This included background information, noting the origin of the effort to restart the task force. On September 22, 2016, the Federal Energy Regulatory Commission (FERC) issued Order No. 830 approving Reliability Standard TPL-007-1 (Transmission System Planned Performance for Geomagnetic Disturbance Events). In the Order, FERC directs NERC to: (i) make certain modifications to the standard; (ii) conduct additional research into geomagnetic disturbance (GMD)-related areas; and (iii) collect, pursuant to Section 1600 of the NERC Rules of Procedure, certain GMD-related data already in existence. The Chair discussed steps being taken to address the directives and potential Planning Committee involvement.

- The PC approved the motion for approval of the revised Task Force scope.

Power Plant Modeling & Verification Task Force (PPMVTf)

Ryan Quint (NERC) discussed the technical workshop held by NERC on Power Plant Model Verification & Testing in September 2016. A key take away from that workshop was to bring together power plant testing experts, GOs/GOPs, TOs/TOPs, TPs/PCs, and the manufacturing community to develop technical guidance materials related to power plant modeling, power plant model verification (PPMV), and generator testing procedures. This Task Force is expected to exist for two calendar years to develop the deliverables outlined in the scope document.

- Motion for approval the creation of the PPMVTf, reporting to the SAMS was approved by the PC.

NERC Critical Infrastructure Protection Committee (CIPC) Report to Southwest Power Pool Regional Entity Trustees

Submitted by Eric Ervin, Chair, SPP CIPWG
December 16, 2016

NERC CIPC Meeting

- The NERC CIPC held its quarterly meeting in Atlanta, GA December 13-14, 2016.
 - Agenda, Presentations, and Minutes:
 - <http://www.nerc.com/comm/CIPC/Pages/AgendasHighlightsandMinutes.aspx>
 - Next NERC CIPC Meeting will be held in Atlanta, GA March 7-8, 2017.
- Mr. Marc Sachs, Senior Vice President and Chief Security Officer, NERC, provided an E-ISAC Update
 - Member Executive Committee
 - 2016 work plan execution is on track
 - Publish a “How-To” Guide (“Understanding Your E-ISAC”)
 - Develop E-ISAC Products and Services List
 - Define E-ISAC Role in Classified Briefings
 - Establish User Communities
 - Develop Strawmen for E-ISAC Reports
 - Pilot Automated Information Sharing (Platform)
 - Initiate Improvements to the Portal
 - Develop Plan to Evaluate 24/7 Watch and Notification Capability
 - Conduct Site Penetration Testing
 - Staffing
 - 17 employees plus three contractors in the Washington, DC office
 - Physical security manager transferred internally
 - Member services manager (ESCC recommendation) hired in August
 - Active search for a new Watch Operations Team director
 - Technology
 - Web portal upgrade project initiated in June, will finish in November
 - New platform project RFP issued in late October
 - STIX/TAXII pilot in final stages of vendor procurement
 - CRISP unclassified data center initiative started
 - All CRISP data currently flows to PNNL
 - CRISP participants use the Information sharing Devices (ISD) to collect and send data
 - PNNL provides system to “write up” to classified networks for analysis
 - E-ISAC currently relies on PNNL for analysis of CRISP data and reports

- Mr. Mark Olson, Senior Standards Developer, provided a CIP Standards & Compliance Update
 - FERC Order 829 – Cyber Security – Supply Chain Risk Management (CIP-013-1)
 - Must be submitted to FERC by September 27, 2017 (Order 829 effective September 27, 2016)
 - The new standard must address the following security objectives: Software integrity and authenticity, Vendor remote access, Information system planning, and Vendor Risk management and procurement controls
 - Issues include a need to combine procurement controls and technical controls to satisfy directives.
 - Low Impact Electronic Access Controls
 - The latest ballot on LERC closed December 5, 2016. The ballot received strong support from stakeholders
 - While some stakeholders expressed support for retaining the definition of LERC including aligning it with language used in medium and high impact, the SDT decided to move forward with retirement of the terms
 - The SDT determined that the new criteria developed for CIP-003-7 Attachment 1, section 3.1 provided additional clarity need for low impact.
- Mr. Marc Child, CIPC Chair, Great River Energy, provided a CIPC Executive Committee Annual Strategic Planning Update
 - Annual Planning Goals
 - Align CIPC efforts with NERC strategic plan and ensure the work plan is mapped to RISC priorities. CIPC voting members are asked to chair or co-chair a working group or taskforce at least once within a two-year term. Need to ensure expertise in voting members.
 - Review workgroup & taskforce charters and makes changes as necessary
- Mr. Gerry Cauley, President and CEO, NERC, provided final remarks
 - Highlights of 2016
 - Ukraine attack, political motivations, Internet of Things.
 - Significant points of progress
 - E-ISAC improvements due to report; new platform for the E-ISAC, more interactive, increase in ISAC participation.
 - Roll-out of CIPV5
 - Challenges
 - Lessons Learned from FERC CIP Audits (do we have proper measures and controls) and Physical Security Assessments
 - Effects of new Administration
 - Coordinating Council in its current form has only ever known one President, Whitehouse, and DHS. All the relationships will be gone and new ones will have to be built with new leadership
 - Had a “battle rhythm” with current administration

NERC Compliance and Certification Committee Meeting Notes
January 30, 2017
Submitted by Jennifer Flandermeyer, SPP RRO Representative
Senior Manager, Reliability Strategy, Kansas City Power & Light

The North American Electric Reliability Corporation (NERC) Compliance and Certification Committee (CCC) convened their quarterly meetings on November 29-30, 2016. The following are the most significant highlights from those meetings. Minutes and background materials are posted as follows:

<http://www.nerc.com/comm/CCC/Agenda%20Highlights%20and%20Minutes%202013/CCC%20Agenda%20Package%20November%202016.pdf>

Minutes and additional background materials should be posted in the next few weeks.

<http://www.nerc.com/comm/CCC/Agenda%20Highlights%20and%20Minutes%202013/CCC%20November%202016%20Meeting%20Minutes.pdf>

A complete record, actions not reflected below, CCC administrative business and NERC Staff updates can be found in the minutes when posted.

2017 Work Plan Approval

The CCC members approved the 2017 CCC Work Plan, with no objections or abstentions. The document will be presented to the EWRC and NERC BOT in February for approval.

Focused Member Feedback Follow Up on Oversight Monitoring Tools

The CCC Chair provided background on the Board's response to the CCC discussions on feedback on consistency. The NERC Board asked that the CCC present an overview of a process on how to assist NERC in screening information on consistency so NERC can appropriately address the issues. The CCC organized a small group to help set up this process. The small group will consider any inputs from the Regional Consistency Reporting Tool and the comments from the ERO Enterprise Effectiveness Survey.

Compliance Guidance

Status updates were given on the documents submitted for proposed Implementation Guidance. Details were provided on some of the documents submitted by the CCC Compliance Guidance Task Force that were not endorsed. CCC members suggested that NERC include an archive of submitted documents on its website.

ERO Enterprise Staff Reports - Status of CCC Work Plan Deliverables

There has been recent activity to refine risk-based compliance monitoring. An overview of changes to the ERO Enterprise Guide for Compliance Monitoring was provided,

which formerly was called the ERO Enterprise IRA Guide. There was discussion on Compliance Oversight Plans and the interaction with IRAs. There was further discussion and an overview about internal controls considered for compliance monitoring activities. Discussion around when registered entities could expect controls conversations during compliance monitoring activities occurred. The group recommended more communications materials and there was discussion on how to continue messaging on controls to registered entities.

Future Meeting Dates

- March 15 - 16, 2017: Atlanta, GA (NERC Offices)
Wednesday, 8:00 a.m. – 5:00 p.m. and Thursday, 8:00 a.m. – Noon
- May 17 – 18, 2017: Salt Lake City, UT (Hosted by WECC)
Wednesday, 8:00 a.m. – 5:00p.m. and Thursday, 8:00 a.m. – Noon
- September 13 – 14, 2017: Atlanta, GA (NERC Offices)
Wednesday, 8:00 a.m. – 5:00 p.m. and Thursday, 8:00 a.m. – Noon
- November 29 - 30, 2017: West Palm Beach, FL (Hosted by FPL)
Wednesday, 8:00 a.m. – 5:00 p.m. and Thursday, 8:00 a.m. – Noon