



REGIONAL ENTITY TRUSTEES MEETING

APRIL 25, 2016

Santa Fe, El Dorado Hotel

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 – 1/25/16 and 3/22/16Dave Christiano
- 4. 2016 Summer Reliability AssessmentLanny Nickell
- 5. SPP RE Trustee ReplacementDave Christiano
- 6. Preliminary 2017 SPP RE Business Plan and Budget.....Debbie Currie
 - * *Action item - Approve Preliminary Business Plan and Budget*
- 7. YTD Financial UpdateDebbie Currie
- 8. NERC Planning Committee ReportNoman Williams
- 9. CIP Update.....Kevin Perry
- 10. Recent System Events / FAC Update.....Alan Wahlstrom
- 11. *FERC/NERC/RE Joint Review of Restoration Plans* ReportAlan Wahlstrom
- 12. Enforcement ReportJoe Gertsch
- 13. General Manager’s ReportRon Ciesiel
- 14. YTD Staff Performance Goals and Metrics.....Ron Ciesiel
- 15. Outreach Update Emily Pannel
- 16. NERC COMMITTEE REPORTS – Comments or Questions
 - a. Compliance and Certification Committee... Jennifer Flandermeyer
 - b. Critical Infrastructure Protection.....Eric Ervin
 - c. System Protection and ControlOPEN
 - d. Operating Committee..... Jim Useldinger



17. New Action Items..... Emily Pennel

18. Future MeetingsDave Christiano

- June 13, 2016: Little Rock (budget meeting)
- July 25, 2016: Rapid City
- October 24, 2016: Little Rock

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.



**REGIONAL ENTITY TRUSTEES MEETING
JANUARY 25, 2016
Oklahoma City, Oklahoma
A G E N D A
8:00 a.m. – 2:30 p.m.**

Meeting Materials

1. **Call to Order/Introductions** **John Meyer**
John Meyer called the meeting to order at 8:00 a.m. He welcomed SPP Board member Phyllis Bernard and candidates for the SPP, Inc. Board, Bruce Scherr and Graham Edwards.

2. **Antitrust Guidelines**..... **John Meyer**
Mr. Meyer reviewed the guidelines with attendees.

3. **Approval of Meeting Minutes – 10/26/15**..... **John Meyer**
The Trustees approved the minutes.

4. **2015 Year in Review**..... **Ron Ciesiel**
In 2015, SPP RE staff achieved a high level of success when measured by our goals and metrics; staff’s weighted total metrics achievement was 114.7%. Other accomplishments include:
 - Implemented Multi-Region Registered Entity, Inherent Risk Assessment, Internal Control Evaluation, NERC Auditor Handbook, Self-Logging, and Compliance Exception processes
 - Improved pre-audit evidence reviews, resulting in decreased audit times and team sizes
 - Continued downward trend in violations
 - Developed “how to” guides for compliance and enforcement processes
 - Developed internal controls for compliance and enforcement requirements
 - Processed registration changes due to the revised Bulk Electric System Definition and FERC Orders related to Load-Serving Entities, Purchasing-Selling Entities, and Distribution Providers
 - Received positive feedback from NERC and FERC observers of SPP RE audits
 - Received favorable ratings on the annual stakeholder survey
 - Continued engagement with NERC’s Events Analysis and Facility Ratings Alert programs
 - Published three Regional Reliability Assessments
 - Increased attendance at outreach activities

Michael Desselle thanked SPP RE staff for their outreach to the SPP RTO on the CIP V5 transition and 2013 CIP audit response.

Gerry Burrows thanked staff for a job well done, especially on outreach. He also thanked the Registered Entities for stepping up and improving their compliance programs and reducing violations, particularly high impact violations.

5. Accept 2015 Goals and Metrics Performance * Action item Ron Ciesiel

John Meyer noted that while there are a large number of goals, the goals do encompass all RE staff. Dave Christiano noted that SPP RE employees do not have direct control over the relay operations success rate. However, reducing misoperations is very important for grid reliability. Fred Meyer noted that SPP RE's outreach, especially regarding CIP V5, has been very good and he thanked staff for their hard work. The Trustees unanimously approved the 2015 Goals and Metrics achievement.

6. Approve 2016 Goals and Metrics * Action item..... Ron Ciesiel

Ron Ciesiel reviewed the 15 goals for SPP RE's staff performance in 2016. The Trustees approved the metrics with the following changes: on goal 5, lower the 150% contribution from 30 days to 25. On goal 11, drop the weighting to 2.5%. On goal 15, increase the weight to 10%.

7. Approve SPP RE Merit Pool * Action item..... Ron Ciesiel

SPP, Inc. approved a 2.5% merit pool for the SPP RTO staff for the 2016 calendar year. During the 2016 SPP RE budget development, the SPP RE Trustees approved a 3% merit pool increase for budgetary purposes, which is in line with what other REs have approved and implemented. At this meeting, the SPP RE Trustees approved a merit pool of 2.75%, which will be applied for the SPP RE staff for 2016.

8. CIP Update..... Kevin Perry

On January 21, FERC approved the CIP Version 5 Revisions in Order 822. The Order removed the "Identify, Assess, and Correct" language; clarified protections for Low Impact BES Cyber Systems; accepted NERC's discussion of the term "communication networks" in lieu of a new Glossary definition; and approved the Implementation Plan, violation risk factors, and violation severity levels.

Order 822 also directed NERC to develop risk-based modifications to the CIP standards to address FERC's concerns regarding protections for transient electronic devices used at Low Impact BES Cyber Systems and for data and the communication links supporting the data communicated between Bulk Electric System Control Centers. NERC is to modify the definition of Low Impact External Routable Connectivity (LERC) consistent with the related discussion found in the Guidelines and Technical Basis section of CIP-003-6. By 4/1/17, NERC must complete and submit a study of the efficacy of the remote access protections afforded by the CIP V5 Standards. The Order deferred further action on Supply Chain Management until after the 1/28/16 technical conference.



Order 822 was published in the Federal Register on 1/26/16 and is effective 3/31/16. That means the V5 Revisions will become enforceable 7/1/16. Per the Implementation Plan, CIP-003-6, R1, Part 1.2 and R2 are enforceable 4/1/17. Other new requirements have delayed effective dates. You will need to refer to both the CIP V5 and CIP V6 Implementation Plans for the enforcement dates for selected Requirements.

This year FERC will be leading audits to assess compliance with standards, adequacy of Registered Entity's controls where compliance discretion is permitted, and instances of ambiguity/entity compliance in light of the ambiguity. The SPP RE region may have a FERC-led audit.

We will begin auditing CIP V5 on 4/1/16. We will initially collect evidence only for the V5 (and later, V6) revisions (depending on the Requirements in effect at the time). If V5 or V6 non-compliance is found for a Requirement/Part with a mostly compatible V3 predecessor Requirement, the audit team will look at compliance with prior versions to determine the start of the violation. The audit team will identify gaps in the Standards as recommendations, which will be discussed separately in the audit report.

To assist with the evidence management and audit approach, NERC posted an optional evidence request and user guide. This document was developed in response to industry concerns about Regional audit consistency and was developed against the CIP V5 Revisions (also known as CIP V6). NERC is seeking industry review and comment on the document.

There will be two Self-Certifications in 2016. CIP-002-5.1 is a compliance Self-Certification with data collection between 2/1/16 to 5/2/16. A NERC-standardized Excel workbook will be used for data collection. Registered Entities may use the data submission mechanism in webCDMS or the secure EFT Server to submit the completed workbook. If you need a user account for the EFT Server, please contact Leesa Oakes.

CIP-014-2 will be a more traditional Self-Certification, using the webCDMS Self-Certification tool between 3/15/16 to 5/2/16. Similar to the CIP-002-5.1 Self-Certification, there is expected to be a simple Excel spreadsheet for the Registered Entity to complete. If the Registered Entity responds "yes" to certain questions, SPP RE will follow-up to get additional detail about the substations identified for physical protections.

This quarter, the SPP RE CIP team has been invited to visit 11 Registered Entities to help ensure the companies are ready for CIP V5 before it becomes effective. We visited with seven companies in late 2015, performing outreach and readiness reviews. We will shift our outreach focus to the Low Impact requirements after 4/1/16, although we will be happy to continue to offer outreach on High/Medium Requirements, including those with a delayed enforcement

*Relationship-Based • Member-Driven • Independence Through Diversity
Evolutionary vs. Revolutionary • Reliability & Economics Inseparable*

date. If you would like assistance from SPP RE to prepare for CIP V5, we will try to work your company into our very full travel schedule. Please contact Steven Keller. Otherwise, the best way to ask us questions is to email us. We hope you can attend the CIP Workshop in May as well, which will focus on Low Impact requirements.

NERC is planning two Small Group Advisory Sessions later in the year, focused on the Low Impact Requirements. Look to this newsletter and NERC announcements for details as they become available. This is a great opportunity to spend a couple of hours with NERC and Regional audit staff discussing your challenges and getting your questions answered.

9. **NERC Compliance and Certification Committee (CCC)....Jennifer Flandermeyer**

The NERC Board of Trustees endorsed the Compliance Guidance Policy document intended to consider approaches “useful in providing guidance for implementing standards, and develop a policy proposal for the purpose, development, use, and maintenance of this guidance.” The policy established two types of guidance: Implementation Guidance, which is vetted and endorsed by industry, and CMEP Practice Guides, which will be written by ERO Enterprise CMEP staff.

The CCC will collaborate with the standards committee to vet additional non-qualified organizations to submit guidance documentation, work with NERC on endorsing guidance, and reviewing existing documents to recommend for ERO endorsement

Ron Ciesiel and John Meyer thanked Jennifer Flandermeyer and our other NERC representatives – Eric Ervin, Jim Usledinger, and Noman Williams - for their work.

10. **Governance Issues.....Dave Christiano**

SPP RE was created in 2007, and shortly afterward we were audited by FERC. FERC noted concerns about SPP RE’s independence from SPP RE. By 2012, SPP RE had satisfied all of FERC’s recommendations regarding separation between SPP RE and RTO.

Last year during renewal of the RE delegation agreements, NERC raised concerns about SPP RE’s independence from SPP RTO. The issue is due to our unique governance; SPP RE is governed by its own independent board but exists under the SPP Inc. corporate structure and bylaws. We believe we have made headway in educating NERC that SPP RE is independent.

The SPP RTO and SPP RE footprints are diverging. This issue has been partially solved by limiting voting on election of SPP Trustees to SPP members who are also Registered Entities in the SPP RE. The issue remains however, for

Registered Entities in SPP RE who are not SPP members, and thus have no vote. This represents about one half of the Registered Entities, approximately 50.

The SPP, Inc. Corporate Governance Committee nominates Regional Entity Trustees and recommends Trustee compensation. The committee includes members who are not SPP RE Registered Entities: three new northern SPP members (Lincoln, WAPA, NPPD) plus CEO Nick Brown and Chairman Jim Eckelberger.

Does it make sense for non-SPP RE Registered Entities to vote on SPP RE matters? Dave Christiano brings these items up for future discussion and consideration.

11. Quarterly System Events & FAC Update Alan Wahlstrom

There were 21 system events in 2015; only 9 were analyzed via the NERC Events Analysis process. There were two SPP Regional Events in the last quarter of 2015.

In the Facility Ratings Alert program, 100% of high priority line discrepancies are complete, 78.6% of medium priority line discrepancies are complete, and 88.2% of low priority line discrepancies are complete.

When NERC asked us about companies doing a good job with line ratings, we recommended that NERC talk to Westar.

12. Enforcement Report Joe Gertsch

The overwhelming majority of violations are low-risk and processed via the Compliance Exception process. We received 89 violations in 2015. The caseload index is 7.5 months. We have 82 active violations now.

There are 44 active violations with no Mitigation Plan. There is no obligation for a Registered Entity to submit a Mitigation Plan until it receives a Notice of Alleged Violation. SPP RE needs to ensure that violations are mitigated, and a completed Mitigation Plan assures the Registered Entity that the company has returned to compliance. According to the chart of “average time to mitigate top ten violated standards”, it takes Registered Entities from 7 to 14 months to complete mitigation. We encourage Registered Entities to complete mitigation as soon as possible. Timely mitigation can potentially reduce penalties too.

13. General Manager’s Report Ron Ciesiel

The Regional Entity delegation agreements have been filed at FERC and are awaiting final approval. SPP RE’s 2016 staffing is at 26 employees vs. the approved 28 employees. Violations continue to trend downward. Our last actionable vegetation contact was in 2010. Communication failures continue to be the leading cause of misoperations out of over 600 operations in each of the

last two quarters. Most of the issues occur at 160 kV and below. 95% of misoperations can be declared as unnecessary.

14. Financial Report.....Debbie Currie

SPP RE's 2015 total expenses were \$1,907k under budget. The budget underrun was in the areas of personnel, meeting and travel, professional services, and the SPP. Inc. overhead charge.

This year, we expect the budget, expenditures and assessments to become more aligned. The 2016 budget of \$10.1 million is ~14% less than the 2015 budget of \$11.8 million.

15. Outreach ActivityEmily Pennel

The December webinar on Low Impact Cyber Assets had 150 registrants. We had 1,400 plays on our training videos in 2015. The spring workshop is March 15-16 in Little Rock. The CIP workshop is May 24-25 in Little Rock.

The RTO plans to start holding its forums in conjunction with the Regional Compliance Working Group meetings rather than the SPP RE workshops. Phyllis Bernard noted that it has been beneficial holding the RTO forums and SPP RE workshops together.

16. NERC COMMITTEE REPORTS – Comments or Questions

- a. Planning.....Noman Williams
- b. Critical Infrastructure Protection.....Eric Ervin
- c. OperatingJim Useldinger

17. Existing and New Action Items.....Emily Pennel

- a. Staff is to revise the 2016 goals and metrics document with the suggested changes.
- b. The CIP team will assure that participants in the CIP-002-5.1 Self-Certification receive adequate instruction and explanations.
- c. Dave Christiano will work with the Corporate Governance committee on the issues noted in item 10.

18. Future MeetingsJohn Meyer

- April 25, 2016, Santa Fe
- July 25, 2016, Rapid City
- October 24, 2016, Little Rock

Chairman Meyer adjourned the meeting at 3:16 p.m.

The meeting was followed by a closed session for the Trustees and General Manager to discuss personnel issues.

REGIONAL ENTITY TRUSTEE MEETING

January 25, 2016

ATTENDANCE LIST

NAME	ORGANIZATION
Emily Penney	SPP RE
Sheila Scott	SPP RE
Alan Wahlstrom	SPP RE
Joe Gertsch	SPP RE
Kevin Brooks	SPP RE
Debra	SPP RE
Bo Jones	Westar
Geoffrey Edwards	SPP
Bruce Scherr	SPP
ROD CRESSEL	SPP RE
CHIP KOLOINI	GOLDEN SPREAD
Michael Desselle	SPD
Terri Pyle	OGE
Dana Gillett	OGE
Jennifer Flandermeier	KCPL
BA Bank	EDE
Fred Myers	EDE
Noman Williams	SCMCN
BARY WARREN	SCMCN-GREGLIANCE
Ashley Stringer	OMPA

Tom Maldonado	Xcel	teleconf.
John Allen	City Utilities	teleconf.
Jim Useldinger	RCPL	""
Christine Schmidt	ITC	""
Jeff Knottelk	City Utilities	""
Trent Carlson	Gridliance	""
Steven Keller	SPP RE	""
Lori Frisk-Thompson	BEPC	"
Christopher Matos	FSEC	"
Kim Van Brimmer	SPP	"
Sing Tay	OF+E	"
Andrea Doucette	SPP RE	"
Tina Weyand	EDPR	"



**REGIONAL ENTITY TRUSTEES MEETING
MARCH 22, 2016
Teleconference
2:00 p.m.**

Participants:

John Allen, Gerry Burrows, Mike Buyce, Dave Christiano, Ron Ciesiel, Debbie Currie, Anthony Davis, Andrea Doucette, Anthony Due, David Hudson, Joe Gertsch, Bo Jones, Tom Kleckner, Jeff Knottek, Stewart Lowery, Joshua Martin, Fred Meyer, Emily Pennel, Kevin Perry, John Rhea, Bruce Scherr, Scott Williams

Discussion:

Gerry Burrows called the public meeting to order at 2:00 p.m. Ron Ciesiel reminded everyone that the meeting was being conducted under the SPP RE Anti-Trust guidelines. Mr. Burrows noted the purpose of the meeting was to elect a new Chairman of the SPP RE Trustees, following the resignation of former Chairman John Meyer. Mr. Burrows nominated Dave Christiano as Chairman. Mr. Christiano seconded the nomination.

Only the SPP RE Trustees voted on this issue; the SPP Board and Members Committee were made aware of the meeting but did not vote.

Mr. Christiano noted that John Meyer had been a great leader of SPP RE for nine years and he will be missed. He stated that he and Mr. Burrows do not plan on making any major changes. The next SPP RE Trustees meeting will be in Santa Fe April 25. We will likely not add any new Trustees before the July meeting.

Mr. Christiano and Mr. Burrows recently attended a teleconference with SPP CEO Nick Brown and the Corporate Governance Committee; they decided to create a sub-group for Members in the northern part of the SPP footprint who are not in the SPP RE footprint.

A caller asked why Mr. Meyer resigned. Mr. Christiano indicated that Mr. Meyer was notified of a conflict between his service on the Peak Reliability Board and the SPP RE Trustees. Last fall SPP registered some functions in WECC, and Peak Reliability's by-laws state that a Peak Board member cannot be a Board member of a Registered Entity in the WECC region. This is to ensure the Peak Reliability Board's independence. Mr. Meyer has led SPP RE for nine years and Peak Reliability has only been in existence for two years, so Mr. Meyer felt he had more to offer on the Peak Board.

Mr. Christiano adjourned the meeting at 2:12 pm.

Submitted by,
Emily Pennel, SPP RE Trustees Secretary



75

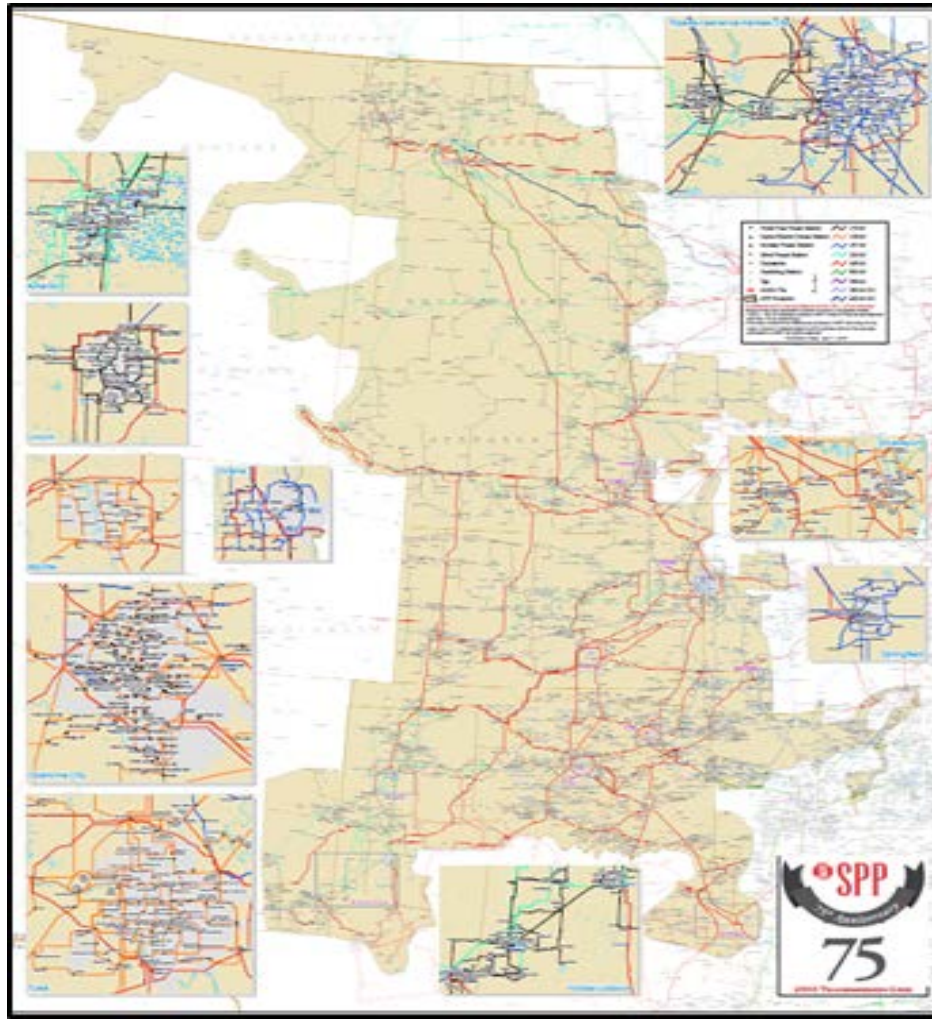
SPP 2016 Summer Assessment Overview

Lanny Nickell

VP of Engineering

Assessment Area

The Summer Assessment was performed on the SPP Planning Coordinator footprint, which includes the Integrated System (IS)



Planning Reserve Margin

- SPP Assessment Area is a summer peaking Region; the Planning Reserve Margin is based on the summer months of June, July, August, and September
- The Loss Of Load Expectation (LOLE) study provides an assessment of whether currently installed capacity is adequate to serve the forecasted load, given a set of random generator outages, and determines if the reserve margin requirement of 13.6% is adequate to maintain an LOLE of 1 day in 10 years
- The forecasted reserve margin is 28% for summer 2016
 - This reserve margin is calculated using a coincident Net Internal Demand of 52,645 MWs

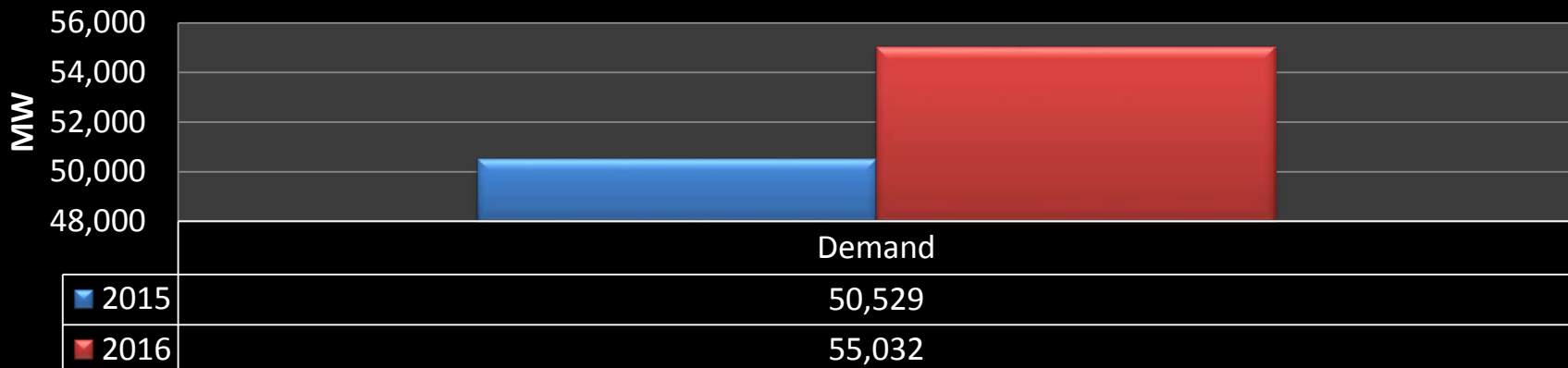
2016 Demand

•SPP Assessment Area Total Internal Demand shown below is a non-coincident number based on member demand submitted through the modeling initiative (Increase is due to the IS)

•SPP reported this year, to NERC, a coincident Total Internal Demand of 53,429 MWs and a Net Internal Demand of 52,645 MWs

DEMAND (Non-Coincident)	Unit	2016 Summer
Total Internal Demand	MW	55,032
Controllable and Dispatchable Demand Response - Available	MW	785
Net Internal Demand	MW	54,247

2015 vs 2016 Non-Coincident Demand



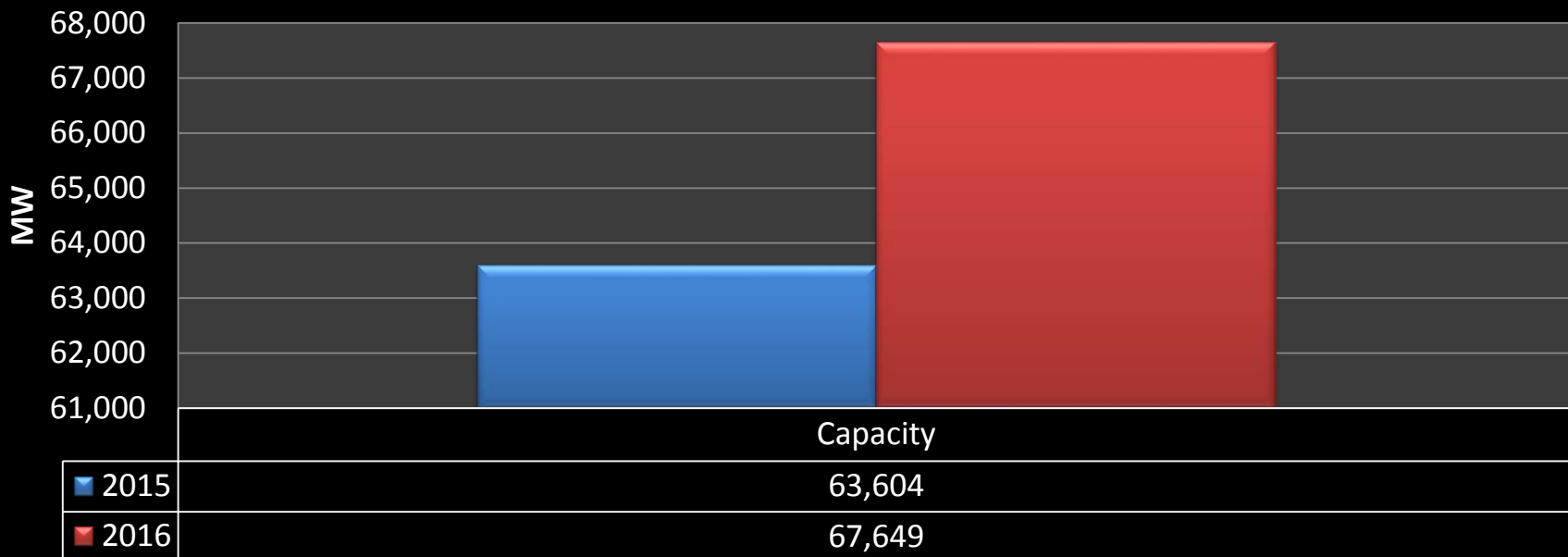
2016 Capacity

- Total Installed capacity for the SPP BA is retrieved from the Energy Management System models provided by Operations
 - Scheduled outages reported in CROW are subtracted from the total installed capacity
 - Thermal Units are accredited to their full net capability that is modeled
 - Wind and Solar are removed from the installed capacity numbers
 - The accredited capacity is calculated based on SPP Planning Criteria 7.1.5.3
 - The accredited capacity values are then added back into the total installed capacity
- Hydro numbers reported are based off the previous years actual
- Behind the meter units are modeled as a resource

2016 Capacity

CAPACITY	Unit	2016 Summer
Existing-Certain	MW	67,649
VARIABLE RESOURCES	Unit	2016 Summer
Wind - Total Nameplate	MW	12,980
Wind - Available	MW	1,843
Solar - Total Nameplate	MW	190
Solar - Available	MW	125
Hydro - Total Nameplate	MW	5,833
Hydro - Available	MW	4,200

2015 vs 2016 Capacity



2016 Reliability Concerns

- Operations has no ongoing identified concerns
- Variable resource integration continues to be an active issue
 - SPP set several new wind penetration records during the first quarter of 2016
 - SPP is adding two new 70 MW solar farms in 2016



2017 Preliminary Business Plan & Budget

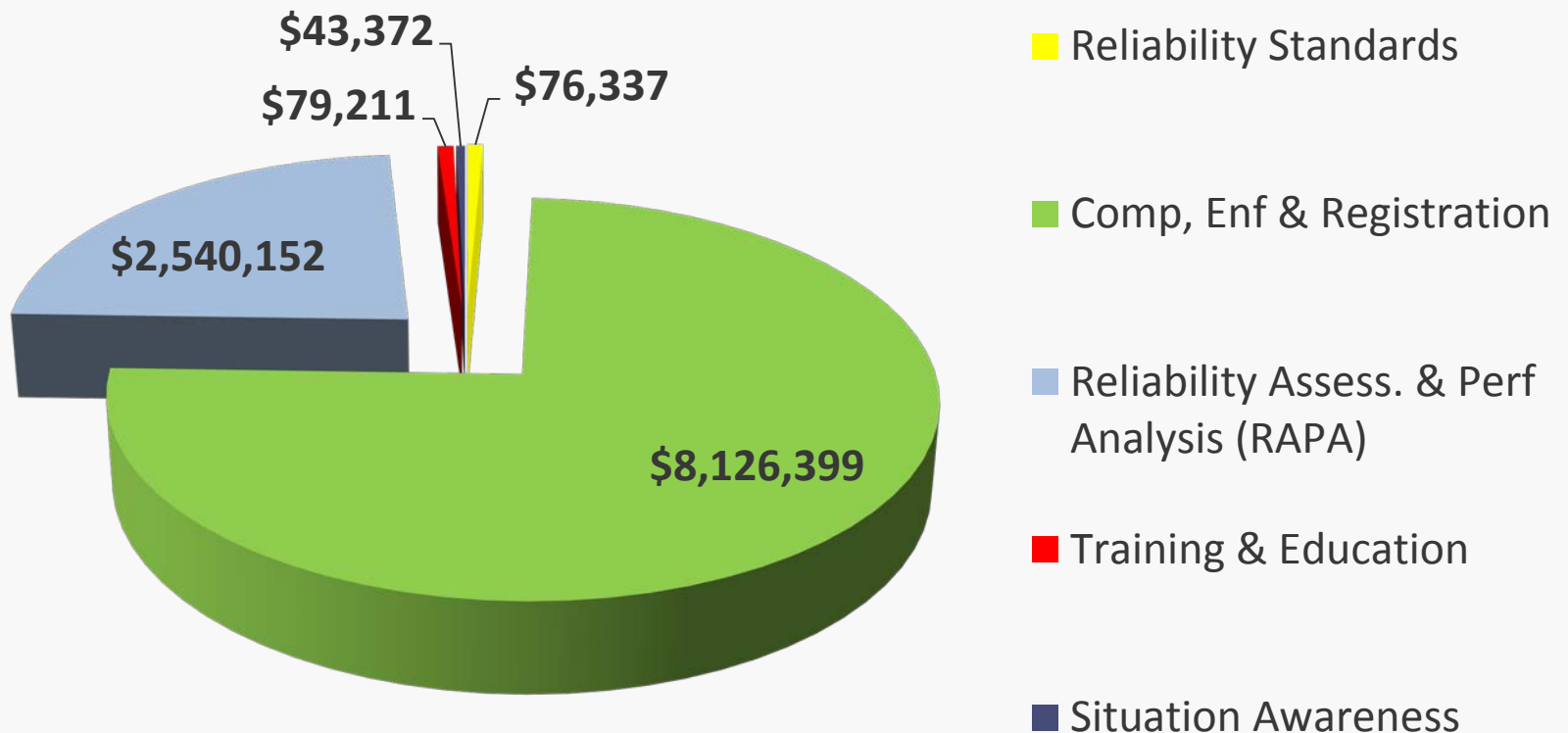
April 25, 2016

Debbie Currie

**RE Manager of Regulatory Interface
and Process Improvement**

2017 Preliminary Budget Overview

Proposed Budget - \$10.9 Million



2016-2017 Budget Comparison Overview

Resource Item	Approved 2016	Preliminary 2017	Increase / (Decrease)	% Increase / (Decrease)
SPP RE Direct FTEs	28.00	28.00	0.0	0%
SPP Shared FTEs	4.25	5.25	1.0	24%
Total FTEs	32.25	33.25	1.0	3%
Direct Expenses (millions)	\$6.7	\$7.2	\$499k	8%
SPP, Inc. Indirect Expenses (millions)	\$3.4	\$3.7	\$270k	8%
Total Expenses (millions)	\$10.1	\$10.9	\$770k	8%
Total Funding Requirement (millions)	\$8.8	\$9.3	\$515k	6%
RE Assessments (millions)	\$8.6	\$9.0	\$338k	4%

2016-2017 Budget Comparison Direct Expenses

Cost Item	Increase/ (Decrease)	Explanation
Personnel	\$ 571k	1.0 FTE increase; 2017 full-year merit increase; 5% attrition rate
Consultants/Professional Services	\$ 42k	Number of Audits; Risk-Based Compliance Monitoring; Increased Staff Experience and Improved RE Processes; Engineering Data Validation Tool Project; Additional Trustee
Meetings/Office Costs	\$ 30k	Inflationary Increase in Office & Workshop Costs
Travel	\$ (143k)	Several Coordinated Oversight Multi-Region Registered Entity (MRRE) Audits & Reduction in Standard Drafting Team Travel Funds
Total Direct Expenses *	\$ 499k	N/A
SPP Inc. Indirect Expenses	\$ 270k	Inflationary increase plus additional 1.0 FTE
Total Increase in Budgeted Expenses	\$ 770k	N/A
* Includes SPP RE General & Administrative Services and Legal and Regulatory program expenses		

2016-2017 Budget Comparison FTEs

Total FTEs by Program Area	Budget 2016	Projection 2016	Direct FTEs 2017 Budget	Shared FTEs ¹ 2017 Budget	Total FTEs 2017 Budget	Change from 2016 Budget
STATUTORY						
Operational Programs						
Reliability Standards	0.15	0.15	0.13	0.00	0.13	-0.03
Compliance and Organization Registration and Certification	21.35	21.35	21.75	0.00	21.75	0.40
Training and Education	0.50	0.50	0.00	0.00	0.00	-0.50
Reliability Assessment and Performance Analysis	5.63	5.63	1.50	5.25	6.75	1.13
Situation Awareness and Infrastructure Security	0.13	0.13	0.13	0.00	0.13	0.00
Total FTEs Operational Programs	27.75	27.75	23.50	5.25	28.75	1.00
Administrative Programs						
Technical Committees and Member Forums	0.00	0.00	0.00	0.00	0.00	0.00
General & Administrative	4.50	4.50	4.50	0.00	4.50	0.00
Information Technology	0.00	0.00	0.00	0.00	0.00	0.00
Legal and Regulatory	0.00	0.00	0.00	0.00	0.00	0.00
Human Resources	0.00	0.00	0.00	0.00	0.00	0.00
Finance and Accounting	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Administrative Programs	4.50	4.50	4.50	0.00	4.50	0.00
Total FTEs	32.25	32.25	28.00	5.25	33.25	1.00

¹A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

2016-2017 Budget Comparison Program Summary

Program	Budget 2016	Projection 2016	Budget 2017	Change 2017 Budget v 2016 Budget	% Change
Reliability Standards	109,518	76,937	76,377	(33,141)	-30.3%
Compliance Enforcement and Regist	7,787,038	7,792,968	8,126,399	339,361	4.4%
Reliability Assess and Perf Analysis	1,912,600	1,914,013	2,540,152	627,552	32.8%
Training and Education	245,432	245,639	79,211	(166,222)	-67.7%
Situation Awareness	41,232	41,262	43,372	2,141	5.2%
	10,095,819	10,070,819	10,865,511	769,691	7.6%
Working Capital Reserve	\$ -	\$ -	\$ -	\$ -	
Total Funding	10,095,819	10,070,819	10,865,511	769,691	7.6%

2017 Proposed Budget Summary

- **Proposed 2017 budget** **\$10.9 million**
- **Increase in expenses** **\$0.77 million /7.6%**
 - **Additional Trustee**
 - **4 CIP Onsite Audits carried over from 2016**
 - **Cost partially offset by 3 Coordinated Oversight MRRE CIP Audits; SPP RE not the lead region**
 - **Carryover for Engineering Data Tool Completion**
 - **Reduction in funds allocated for Standard Drafting Team travel reimbursement**
- **Increased 1.0 FTE in RAPA Program Shared Staff**

2017 Business Plan/Budget (BP&B) Preparation Schedule

Dates	NERC	Regional Entity
May 2	RE Preliminary BP&Bs Due to NERC	
May 19	NERC Draft BP&B posted	Draft RE BP&Bs posted on NERC.com
May 26	Finance & Audit Committee Conference Webinar to review RE BP&Bs	
May 29	NERC files 2014 true-up with FERC	
June 13		SPP RE Trustee meeting for approval of 2017 BP&B

2017 BP&B Preparation Schedule

Dates	NERC	Regional Entity
July 6		Final RE budget submittal due
July 15	Final 2017 BP&Bs posted to NERC website	
August 11	Business plan, budgeted financials, and assessments presented to NERC Board of Trustees for approval	
August 24	Submit package to FERC	



Helping our members work together to keep the lights on ... today and in the future

2017 Business Plan and Budget

Southwest Power Pool Regional Entity

Approved by SPP Regional Entity Trustees

June xx, 2016

Table of Contents

Introduction	3
Section A - 2017 Business Plan	10
Reliability Standards Program.....	11
Compliance Monitoring and Enforcement and Organization Registration and Certification Program	14
Reliability Assessment and Performance Analysis Program	19
Training, Education, and Operator Certification Program	23
Situation Awareness and Infrastructure Security Program	26
Administrative Services.....	30
Section B - Supplemental Financial Information	36
Reserve Balance	37
Breakdown by Statement of Activity Sections.....	38
Section C - 2016 Non-Statutory Business Plan and Budget	47
Section D	51
Section E	53
Section F	55

Introduction

TOTAL RESOURCES (in whole dollars)				
	2017 Budget	U.S.	Canada	Mexico
Statutory FTEs	33.25			
Non-statutory FTEs	-			
Total FTEs	33.25			
Statutory Expenses	\$ 10,865,511			
Non-Statutory Expenses	\$ -			
Total Expenses	\$ 10,865,511			
Statutory Inc(Dec) in Fixed Assets	\$ -			
Non-Statutory Inc(Dec) in Fixed Assets	\$ -			
Total Inc(Dec) in Fixed Assets	\$ -			
Statutory Working Capital Requirement Adjustment	\$ (1,530,708)			
Non-Statutory Working Capital Requirement	\$ -			
Total Working Capital Requirement	\$ (1,530,708)			
Total Statutory Funding Requirement	\$ 9,334,803			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 9,334,803			
Statutory Funding Assessments	\$ 9,334,803	\$ 9,334,803		
Non-Statutory Fees	\$ -	\$ -		
NEL	225,657,039	225,657,039		
NEL%	100%	100%		

Organizational Overview

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 with NERC originally approved by FERC in 2007 and again in October 2011. The current RDA was approved by FERC in March of 2016.¹ As a NERC Regional Entity, SPP RE promotes and works to improve the reliability 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 BPS

¹ http://www.nerc.com/FilingsOrders/us/FERCOOrdersRules/LetterOrder_RDAs_20160323_RR15-12.pdf;
http://www.nerc.com/FilingsOrders/us/Regional%20Delegation%20Agreements%20DL/SPP_RDA_Effective_2016_0101.pdf

reliability. SPP RE provides technical expertise and assistance to BPS owners, operators and users, in particular to the approximately 115 registered entities located within the SPP RE's footprint, an eight-state area that includes all or a portion of Arkansas, Kansas, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, and Texas.

Sections A and B of this business plan and budget (BP&B) detail the programs and costs for the activities the SPP RE performs to fulfill the duties specified in the Regional Entity Delegation Agreement between SPP and NERC.

The SPP's RTO activities, which are listed in Section C of this BP&B, are non-statutory, and as such, are not included in the SPP RE's BP&B.

Membership and Governance

Pursuant to the SPP bylaws, SPP RE is governed by up to four independent Regional Entity Trustees,² 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 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 RE region.

SPP RE's governance, which has been approved by NERC and FERC, meets the requirements of the Energy Policy Act of 2005.

Statutory Functional Scope

SPP RE performs various activities in the execution of its delegated functions and in support of NERC's responsibilities as the electric reliability organization (ERO). These activities include:

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

2017 Key Assumptions

The key assumptions underlying the SPP RE 2017 Business Plan and Budget (BP&B) are consistent with ERO BP&B Assumptions as found in NERC's 2017 BP&B. The assumptions that are of particular importance to the SPP RE's 2017 BP&B include the expectation that:

² FERC Docket No. ER16-430-000, Letter Order approving a Revision to the Bylaws expanding the RE Board of Trustees by one additional seat.

1. NERC and the Regional Entities will continue to work collaboratively to promote and improve the reliability of the BPS.
2. NERC and the Regional Entities will continue to work under the regulatory framework governing the establishment and enforcement of reliability standards for the BPS established by the Energy Policy Act of 2005.
3. SPP RE's delegated authorities and responsibilities will remain relatively constant.
4. NERC and the Regional Entities will work collaboratively to refine and revise processes and procedures to eliminate duplication, increase operational efficiencies, enhance ERO-wide consistency, and achieve measureable reliability outcomes.
5. Cyber and critical asset security will continue to be a priority in the United States, with significant oversight by applicable government authorities.
6. Cost pressures may affect stakeholder resources available to participate in NERC and Regional Entity activities. NERC and the Regional Entities business plans, budgets, and resource requirements will continue to be established based upon the assumption of continued industry participation in support of key program areas, including but not limited to event analysis, reliability assessments, and standards development.
7. NERC and the Regional Entities will continue to implement the risk-based Compliance Monitoring and Enforcement Program (CMEP) to focus on higher reliability risks to increase efficiency and mitigate overall compliance costs for registered entities.
8. NERC and the Regional Entities will work collaboratively to implement the registration and certification process through Risk-Based Registration. NERC and the Regions will work to ensure entities are properly registered and have been assigned the proper compliance responsibilities.

In addition to the above assumptions, which are shared among NERC and the Regional Entities, assumptions that are unique to SPP RE include:

1. SPP RE continues to operate as an independent and functionally separate division of SPP.
2. SPP RE continues to utilize SPP Shared staff to conduct certain activities in the SPP RE's Reliability Assessment and Performance Analysis program.
3. SPP RE will continue to engage SERC to perform the compliance enforcement authority activities for the SPP registered functions that would otherwise be performed by SPP RE.

Key assumptions specific to individual programs are provided in Section A of this BP&B.

Goals and Key Deliverables

As part of the implementation of the Electric Reliability Organization Strategic Goals through 2019 (ERO Strategic Plan)³, NERC and the Regional Entities developed a set of Common Assumptions⁴ that are now used to guide budget resource projections for each regional entity and the ERO overall.

SPP RE-specific goals and deliverables include:

- Effectively and efficiently perform the delegated functions of registration, compliance monitoring and enforcement, reliability assessments, performance analysis, and situational awareness with independence, without conflict of interest, with objectivity and fairness.
- Conduct outreach activities, including compliance workshops, training seminars and videos, and newsletters, that facilitate a learning environment and promote a strong culture of reliability excellence and compliance.
- Participate in NERC-sponsored ERO compliance auditor and enforcement staff training.

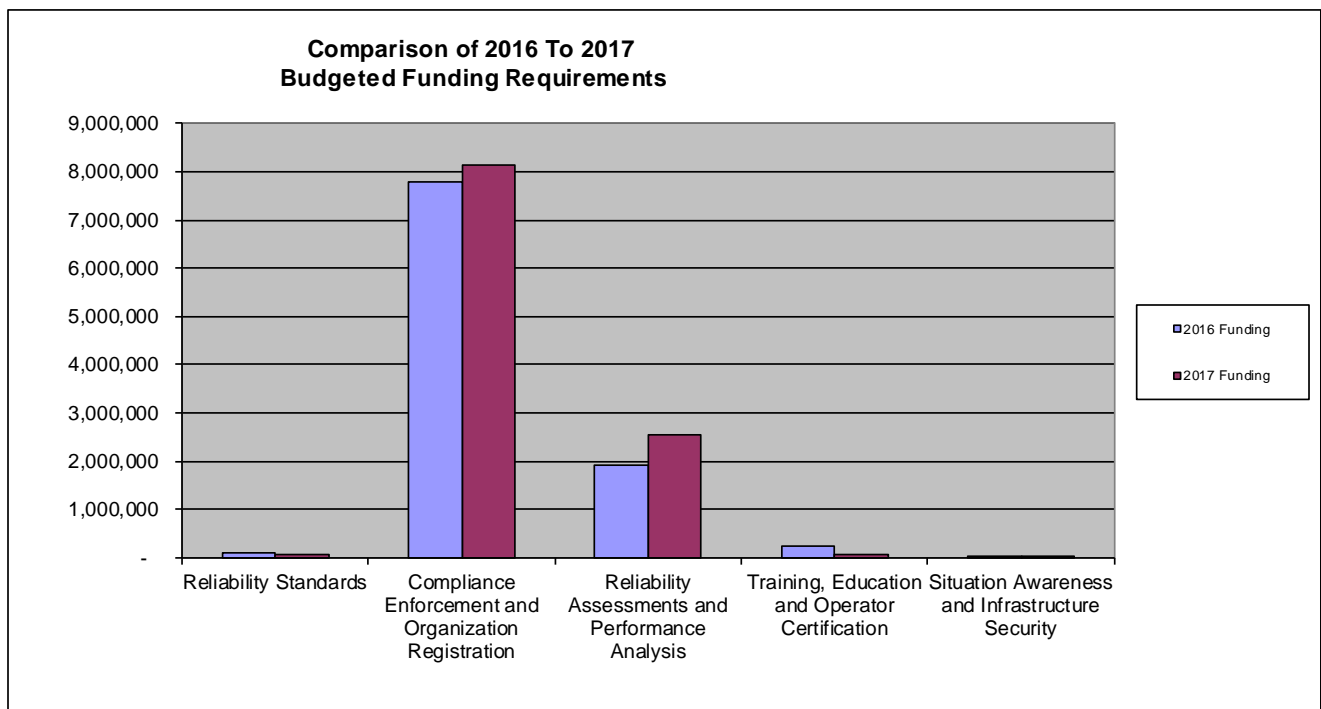
³ <http://www.nerc.com/gov/Annual%20Reports/ERO%20Enterprise%20Strategic%20Plan%202016-2019.pdf>

⁴ See NERC 2017 Business Plan and Budget, Exhibit A.

2017 Overview of Cost Impacts

The \$10.9 million operating budget reflects an approximate \$0.77 million increase or 7.6%. Funding assessments increased by \$338 thousand or 3.9%, from \$8.63 million to \$8.97 million. A summary of the funding by program area is shown in the chart below.

Program	Budget 2016	Projection 2016	Budget 2017	Change 2017 Budget v 2016 Budget	% Change
Reliability Standards	109,518	76,937	76,377	(33,141)	-30.3%
Compliance Enforcement and Registration	7,787,038	7,792,968	8,126,399	339,361	4.4%
Reliability Assess and Perf Analysis	1,912,600	1,914,013	2,540,152	627,552	32.8%
Training and Education	245,432	245,639	79,211	(166,222)	-67.7%
Situation Awareness	41,232	41,262	43,372	2,141	5.2%
	10,095,819	10,070,819	10,865,511	769,691	7.6%
Working Capital Reserve	\$ -	\$ -	\$ -	\$ -	
Total Funding	10,095,819	10,070,819	10,865,511	769,691	7.6%



As shown in the chart that follows, there is a net increase of 1.0 in budgeted Full Time Equivalents (FTE). The increase in Shared Staff is needed to accommodate the increasing RAPA reliability assessment and special study requirements. Some minor changes have also been made between the program areas to reflect the time spent by enforcement staff on reliability standards and the RAPA data groups and the time spent by the RAPA employee on Situational Awareness. In addition, the time spent by CIP audit staff performing CIP V5 transition outreach is expected to diminish in 2017.

Total FTEs by Program Area	Budget 2016	Projection 2016	Direct FTEs 2017 Budget	Shared FTEs ¹ 2017 Budget	Total FTEs 2017 Budget	Change from 2016 Budget
STATUTORY						
Operational Programs						
Reliability Standards	0.15	0.15	0.13	0.00	0.13	-0.03
Compliance and Organization Registration and Certification	21.35	21.35	21.75	0.00	21.75	0.40
Training and Education	0.50	0.50	0.00	0.00	0.00	-0.50
Reliability Assessment and Performance Analysis	5.63	5.63	1.50	5.25	6.75	1.13
Situation Awareness and Infrastructure Security	0.13	0.13	0.13	0.00	0.13	0.00
Total FTEs Operational Programs	27.75	27.75	23.50	5.25	28.75	1.00
Administrative Programs						
Technical Committees and Member Forums	0.00	0.00	0.00	0.00	0.00	0.00
General & Administrative	4.50	4.50	4.50	0.00	4.50	0.00
Information Technology	0.00	0.00	0.00	0.00	0.00	0.00
Legal and Regulatory	0.00	0.00	0.00	0.00	0.00	0.00
Human Resources	0.00	0.00	0.00	0.00	0.00	0.00
Finance and Accounting	0.00	0.00	0.00	0.00	0.00	0.00
Total FTEs Administrative Programs	4.50	4.50	4.50	0.00	4.50	0.00
Total FTEs	32.25	32.25	28.00	5.25	33.25	1.00

¹A shared FTE is defined as an employee who performs both Statutory and Non-Statutory functions.

Compared to the 2016 budget, the net increase in direct expenses and the net increase in the SPP, Inc. indirect expenses are approximately \$499 thousand and \$270 thousand, respectively. The increase in direct expenses is principally due to an annual merit increase in salaries, an increase in the RAPA Shared Staff FTEs and the inclusion of funds for completion of the Engineering Data Validation tool. The increase in SPP, Inc. indirect expenses is due to a nominal inflationary increase and the increased RAPA Shared Staff FTE.⁵ Additional information regarding the changes to the SPP RE operating budget is detailed in the Statutory Statement of Activities and Capital Expenditures table on the next page.

⁵ A table showing the derivation of the Indirect Expense is presented in Section E.

Statement of Activities and Capital Expenditures 2016 Budget & Projection, and 2017 Budget

	2016 Budget	2016 Projection	Variance 2016 Projection v 2017 Budget Over(Under)	2017 Budget	Variance 2017 Budget v 2016 Budget Over(Under)
Funding					
SPP RE Funding					
SPP RE Assessments	\$ 8,626,751	\$ 8,626,751	\$ -	\$ 8,965,053	\$ 338,302
Penalty Sanctions	\$ 193,000	193,000	-	369,750	176,750
Total SPP RE Funding	\$ 8,819,751	\$ 8,819,751	\$ -	\$ 9,334,803	\$ 515,052
Membership Dues	-	-	-	-	-
Federal Grants	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 8,819,751	\$ 8,819,751	\$ -	\$ 9,334,803	\$ 515,052
Expenses					
Personnel Expenses					
Salaries	\$ 3,896,492	\$ 3,896,492	\$ -	\$ 4,385,605	\$ 489,113
Payroll Taxes	\$ 298,082	298,082	-	335,499	37,417
Benefits	\$ 333,564	333,564	-	358,263	24,699
Retirement Costs	\$ 155,860	155,860	-	175,424	19,565
Total Personnel Expenses	\$ 4,683,997	\$ 4,683,997	\$ -	\$ 5,254,791	\$ 570,793
Meeting Expenses					
Meetings	\$ 90,000	\$ 90,000	\$ -	\$ 120,000	\$ 30,000
Travel	\$ 680,200	655,200	(25,000)	537,000	(143,200)
Conference Calls	\$ -	-	-	-	-
Total Meeting Expenses	\$ 770,200	\$ 745,200	\$ (25,000)	\$ 657,000	\$ (113,200)
Operating Expenses					
Consultants & Contracts	\$ 965,042	\$ 965,042	\$ -	\$ 1,020,710	\$ 55,668
Office Rent	\$ -	-	-	-	-
Office Costs	\$ 8,000	8,000	-	10,000	2,000
Professional Services	\$ 153,450	153,450	-	212,100	58,650
Miscellaneous	\$ 74,445	74,445	-	-	(74,445)
Depreciation	\$ -	-	-	-	-
Total Operating Expenses	\$ 1,200,937	\$ 1,200,937	\$ -	\$ 1,242,810	\$ 41,873
Total Direct Expenses	\$ 6,655,134	\$ 6,630,134	\$ (25,000)	\$ 7,154,601	\$ 499,466
SPP Inc. Indirect Expenses	\$ 3,440,685	3,440,685	\$ -	\$ 3,710,910	\$ 270,225
SPP RE Indirect Expenses ⁽¹⁾	-	-	-	-	-
Total Indirect Expenses	\$ 3,440,685	\$ 3,440,685	\$ -	\$ 3,710,910	\$ 270,225
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 10,095,819	\$ 10,070,819	\$ (25,000)	\$ 10,865,511	\$ 769,691
Change in Assets	\$ (1,276,068)	\$ (1,251,068)	\$ 25,000	\$ (1,530,708)	\$ (254,640)
Fixed Assets					
Depreciation	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	\$ -	\$ -	\$ -	-	-
Inc(Dec) in Fixed Assets (C)	-	-	-	-	-
TOTAL BUDGET (=B + C)	\$ 10,095,819	\$ 10,070,819	\$ (25,000)	\$ 10,865,511	\$ 769,691
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (1,276,068)	\$ (1,251,068)	\$ 25,000	\$ (1,530,708)	\$ (254,640)

(1) SPP RE Indirect Expenses which represent direct expenses for SPP RE Administrative Services, are included in direct expenses.

Section A – Statutory Programs
2017 Business Plan and Budget



Section A — 2017 Business Plan

Reliability Standards Program

Reliability Standards Program (in whole dollars)			
	2016 Budget	2017 Budget	Increase (Decrease)
Total FTEs	0.15	0.13	(0.025)
Direct Expenses	\$ 71,613	\$ 47,286	\$ (24,327)
Indirect Expenses- SPP Inc.	\$ 16,003	\$ 13,951	\$ (2,052)
Indirect Expenses- SPP RE	\$ 21,902	\$ 15,140	\$ (6,762)
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Total Funding Requirement	\$ 109,518	\$ 76,377	\$ (33,141)

Program Scope and Functional Description

The Reliability Standards Program is required under the Regional Entity Delegation Agreement, as well as NERC Rules of Procedure, Section 300.

The 0.125 FTEs represents the time spent by an Enforcement Group staff member on reliability standards development activities. Specifically, SPP RE Staff coordinate with NERC to develop and maintain technically sound, fair and balanced reliability standards that enable NERC and Regional Entities to measure the reliability performance of bulk power system owners, operators, and users.

2017 Key Assumptions

The key assumptions concerning the SPP RE's Reliability Standards Program are consistent with the assumptions contained in the ERO BP&B Assumptions.

2017 Goals and Key Deliverables

- Meet directives of ERO governmental authorities regarding standards development and procedures;
- Communicate with stakeholders and regulators regarding standards development;
- Participate and represent SPP region in NERC standard development activities that may have significant influence on the planning and business practices of the entities registered with SPP RE; and
- Participate on in-depth reviews to further improve the Reliability Standards as needed.

Resource Requirements

There is a minor change to the budgeted FTEs for this program area (0.15 reduced to 0.125).

Reliability Standards Program

Statement of Activities and Capital Expenditures					
2016 Budget & Projection, and 2017 Budget					
Reliability Standards					
	2016 Budget	2016 Projection	Variance 2016 Projection v 2016 Budget Over(Under)	2017 Budget	Variance 2017 Budget v 2016 Budget Over(Under)
Funding					
SPP RE Funding					
SPP RE Assessments	\$ 108,474	\$ 108,474	\$ -	\$ 74,769	\$ (33,705)
Penalty Sanctions	1,043	1,043	-	1,608	564
Total SPP RE Funding	\$ 109,518	\$ 109,518	\$ -	\$ 76,377	\$ (33,141)
Membership Dues	-	-	-	-	-
Federal Grants	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 109,518	\$ 109,518	\$ -	\$ 76,377	\$ (33,141)
Expenses					
Personnel Expenses					
Salaries	\$ 18,010	\$ 18,010	\$ -	\$ 18,969	\$ 959
Payroll Taxes	1,378	1,378	-	1,451	73
Benefits	1,505	1,505	-	1,107	(398)
Retirement Costs	720	720	-	759	38
Total Personnel Expenses	\$ 21,613	\$ 21,613	\$ -	\$ 22,286	\$ 673
Meeting Expenses					
Meetings	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	50,000	25,000	(25,000)	25,000	(25,000)
Conference Calls	-	-	-	-	-
Total Meeting Expenses	\$ 50,000	\$ 25,000	\$ (25,000)	\$ 25,000	\$ (25,000)
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Depreciation	-	-	-	-	-
Total Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Direct Expenses	\$ 71,613	\$ 46,613	\$ (25,000)	\$ 47,286	\$ (24,327)
SPP Inc. Indirect Expenses	\$ 16,003	\$ 16,003	\$ -	\$ 13,951	\$ (2,052)
SPP RE Indirect Expenses	21,902	14,321	(7,580)	15,140	(6,762)
Total Indirect Expenses	\$ 37,905	\$ 30,324	\$ (7,580)	\$ 29,091	\$ (8,814)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 109,518	\$ 76,937	\$ (32,580)	\$ 76,377	\$ (33,141)
Change in Assets	\$ -	\$ 32,580	\$ 32,580	\$ -	\$ 1
Fixed Assets					
Depreciation	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-
Inc (Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ 109,518	\$ 76,937	\$ (32,580)	\$ 76,377	\$ (33,141)
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ -	\$ 32,580	\$ 32,580	\$ -	\$ 1
FTEs	0.15	0.15	0.00	0.13	-0.03

Compliance Monitoring and Enforcement and Organization Registration and Certification Program

Compliance Monitoring and Enforcement and Organization Registration and Certification Program (in whole dollars)			
	2016 Budget	2017 Budget	Increase (Decrease)
Total FTEs	21.35	21.75	0.40
Direct Expenses	\$ 4,218,955	\$ 4,316,813	\$ 97,858
Indirect Expenses- SPP Inc.	\$ 2,277,787	\$ 2,427,437	\$ 149,650
Indirect Expenses- SPP RE	\$ 1,290,296	\$ 1,382,149	\$ 91,853
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Total Funding Requirement	\$ 7,787,038	\$ 8,126,399	\$ 339,361

Program Scope and Functional Description

The Compliance Monitoring and Enforcement and Organization Registration and Certification Program (CMEP) is required under the Regional Entity Delegation Agreement, as well as NERC Rules of Procedure, Section 400. There are approximately 115 registered entities located within the SPP RE's footprint. The SPP RE CMEP is administered by the SPP RE Staff. Only the SPP RE Trustees and certain SPP RE Staff members have the authority to make compliance and enforcement decisions.

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 RE region. In accordance with the terms of the agreement between SERC and SPP, SPP RE has included \$41,000 in its budget to compensate SERC for performing the 2017 CMEP activities and Risk Assessments for SPP's registered functions in the SPP RE region.

SPP RE CMEP activities are organized into three distinct groups: Compliance Monitoring; Critical Infrastructure Protection (CIP); and Enforcement. The SPP RE Director of Compliance and Events is responsible for the oversight of the Compliance Monitoring Group, the Director of Critical Infrastructure Protection (CIP) is responsible for the oversight of the CIP Group, and the SPP RE Manager of Enforcement is responsible for the oversight of the Enforcement Group.

Compliance Groups

The FTEs assigned to the Compliance Groups (Compliance Monitoring and CIP) are responsible for registering owners, operators and users of the BPS and monitoring and assessing registered entities' compliance with NERC-approved reliability standards. The various activities performed by the staff members assigned to the Compliance groups include: 1) performing entity-specific inherent risk assessments and internal controls evaluations, 2) conducting compliance audits, spot checks, and self-certifications of entities registered in the SPP RE footprint, 3) reviewing CIP technical feasibility exception requests (TFEs), periodic data submittals and self-reports made by entities registered in the SPP RE footprint, 4) participating in SPP RE workshops and webinars,

and 5) participating in various SPP and NERC working groups. The Compliance Groups also make the initial determination of possible non-compliance with a reliability standard.

A total of 12.0 FTEs are assigned to the Compliance Groups, and include: the SPP RE Director of Compliance, allocated at 0.5 FTEs, five Operations & Planning (O&P or 693) auditor positions, Director of Critical Infrastructure Protection, five CIP audit positions, and one Outreach Coordinator, allocated at 0.5 FTEs.

In addition to the SPP RE Staff, SPP RE uses consultants to assist the SPP RE with operations and planning (693) and CIP audits. On average, two consultants participate on each SPP RE onsite 693 audit team and one consultant participates on SPP's offsite 693 audit team and onsite CIP audit teams. SPP RE has included \$477,610 in its budget for compliance consulting costs.

Enforcement Group

The FTEs assigned to the Enforcement group are responsible for performing assigned Compliance Monitoring and Enforcement Program activities. These activities include but are not limited to: 1) the de novo review of all issues of noncompliance identified by the Compliance Monitoring Group; 2) conducting discovery; 3) documenting and filing all issues of noncompliance in accordance with the NERC Rules of Procedure; 4) preparing and issuing required Registered Entity notices, e.g., Find, Fix and Track (FFTs), Compliance Exceptions, Possible Violation, Alleged Violation and Proposed Penalty or Sanction, and Confirmed Violation; 5) reviewing, accepting, tracking and verifying completion of mitigation plans and mitigating activities; 6) engaging in settlement negotiations to resolve issues of noncompliance; 7) representing the SPP RE in hearings of contested violations; and 8) participating in various SPP and NERC working groups and SPP RE workshops.

A total of 9.75 FTEs are assigned to this group, and include: the Manager of Enforcement, four enforcement attorneys, two compliance enforcement specialists, one mitigation plan engineer, one paralegal and one legal clerk. To recognize that Enforcement staff (0.25 FTEs) participate in NERC's Reliability standard development activities and the Reliability and Performance Analysis (RAPA) data groups, 0.125 FTEs has been allocated to the Reliability Standards Program and 0.125 FTEs to the RAPA Program.

In addition to the SPP RE Staff, SPP RE uses consultants to assist SPP RE with reviewing, accepting, verifying completion of mitigation plans, and processing possible violations. SPP RE has included \$150,000 in its budget for enforcement consulting costs.

2017 Key Assumptions

The assumptions for this program are consistent with those contained in the ERO BP&B Assumptions. NERC and the Regional Entities will continue to collaborate and define ongoing training needs, priorities, and implementation schedules for the auditors, enforcement, and investigation staff. As part of the training effort, at least two compliance enforcement authority (CEA) workshops are anticipated to occur. It is expected that this training and possible certification effort will have an impact on staffing needs and costs (e.g., travel and labor expenses) to participate and attend this training. SPP RE has provided time for staff to seek and maintain industry certifications, such as NERC System Operator Certification, physical and cyber security technical certifications, professional auditing certifications, Professional Engineering License, etc.

Given these key assumptions and based on actual 2016 resource requirements, SPP RE believes the resources assigned to this program area are adequate to achieve the goals and deliverables detailed below.

2017 Goals and Key Deliverables

- Ensure that bulk power system owners, operators, and users are correctly registered, ensure the revised BES definition is correctly applied, and process Exception Requests in a timely manner;
- Implement the risk-based CMEP and conduct entity-specific Inherent Risk Assessments and Internal Controls Evaluations;
- Coordinated oversight of Multi-Region Registered Entities (MRREs);
- Perform 8 to 10 on-site FERC Order 693 compliance audits;
- Perform 12 to 15 off-site FERC Order 693 compliance audits;
- Perform 10 to 13 on-site CIP compliance audits of registered entities with High or Medium Impact BES Cyber Systems;
- SPP RE anticipates that audits of registered entities with only Low Impact BES Cyber Systems can be conducted off-site. The SPP RE will work with the affected registered entities to identify appropriate forms of evidence of compliance that can be evaluated without being on-site. The CIP audit team expects to go on-site only if an audit finding cannot be determined through other means;
- Perform spot check, self-certifications, and periodic data submittals of specified standards as dictated by NERC's 2017 Compliance Monitoring and Enforcement Program Annual Implementation Plan;
- Perform Compliance Investigations, as necessary;
- Perform secondary review of initial findings of possible violations;
- Create Notices of Alleged Violation and Proposed Penalties and Sanctions (NAVAPS) and Notices of Confirmed Violations (NOCV);
- Process Find, Fix and Track (FFT) and Compliance Exceptions;
- Negotiate and develop settlements of violations;
- Verify that findings of non-compliance are and/or have been appropriately mitigated;
- Serve as SPP RE liaisons to SPP working groups and attend approximately 30 SPP working group meetings in 2017; and

- Provide general CIP V5 outreach support for all Registered Entities in all impact categories (High, Medium and Low BES Cyber Systems).

Resource Requirements

Personnel

The Compliance program area reflects a net increase of 0.40 FTEs which reflects the return of 0.50 FTES from the Training & Education program specifically designated as CIP V5 outreach in the 2016 Business Plan & Budget and the enforcement staff's participation on the RAPA data groups.

Contracts and Consultants

The use of consultants is expected to be consistent with 2016.

Statement of Activities and Capital Expenditures
2016 Budget & Projection, and 2017 Budget
Compliance and Organization Registration and Certification

Funding	2016 Budget	2016 Projection	Variance 2016 Projection v 2016 Budget Over(Under)	2017 Budget	Variance 2017 Budget v 2016 Budget Over(Under)
SPP RE Funding					
SPP RE Assessments	\$ 7,638,549	\$ 7,638,549	\$ -	\$ 7,846,675	\$ 208,126
Penalty Sanctions	148,488	148,488	-	279,724	131,236
Total SPP RE Funding	\$ 7,787,038	\$ 7,787,038	\$ -	\$ 8,126,399	\$ 339,361
Membership Dues	-	-	-	-	-
Federal Grants	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 7,787,038	\$ 7,787,038	\$ -	\$ 8,126,399	\$ 339,361
Expenses					
Personnel Expenses					
Salaries	\$ 2,373,788	\$ 2,373,788	\$ -	\$ 2,665,150	\$ 291,362
Payroll Taxes	181,595	181,595	-	203,884	22,289
Benefits	214,183	214,183	-	234,563	20,380
Retirement Costs	94,952	94,952	-	106,606	11,654
Total Personnel Expenses	\$ 2,864,518	\$ 2,864,518	\$ -	\$ 3,210,203	\$ 345,685
Meeting Expenses					
Meetings	\$ 15,000	\$ 15,000	\$ -	\$ 35,000	\$ 20,000
Travel	400,200	400,200	-	282,000	(118,200)
Conference Calls	-	-	-	-	-
Total Meeting Expenses	\$ 415,200	\$ 415,200	\$ -	\$ 317,000	\$ (98,200)
Operating Expenses					
Consultants & Contracts	\$ 883,042	\$ 883,042	\$ -	\$ 778,610	\$ (104,432)
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	4,750	4,750	-	11,000	6,250
Miscellaneous	51,445	51,445	-	-	(51,445)
Depreciation	-	-	-	-	-
Total Operating Expenses	\$ 939,237	\$ 939,237	\$ -	\$ 789,610	\$ (149,627)
Total Direct Expenses	\$ 4,218,955	\$ 4,218,955	\$ -	\$ 4,316,813	\$ 97,858
SPP Inc. Indirect Expenses	\$ 2,277,787	\$ 2,277,787	\$ -	\$ 2,427,437	\$ 149,650
SPP RE Indirect Expenses	1,290,296	1,296,227	5,931	1,382,149	91,853
Total Indirect Expenses	\$ 3,568,083	\$ 3,574,014	\$ 5,931	\$ 3,809,586	\$ 241,503
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 7,787,038	\$ 7,792,968	\$ 5,931	\$ 8,126,399	\$ 339,361
Change in Assets	\$ -	\$ (5,931)	\$ (5,931)	\$ -	\$ -
Fixed Assets	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-
Inc (Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ 7,787,038	\$ 7,792,968	\$ 5,931	\$ 8,126,399	\$ 339,361
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (0)	\$ (5,931)	\$ (5,931)	\$ -	\$ (1)
FTEs	21.35	21.35	-	21.75	0.40

Reliability Assessment and Performance Analysis Program

Reliability Assessments and Performance Analysis (in whole dollars)			
	2016 Budget	2017 Budget	Increase (Decrease)
Total FTEs	5.63	6.75	1.13
Direct Expenses	\$ 1,005,091	\$ 1,353,461	\$ 348,370
Indirect Expenses- SPP Inc.	\$ 600,119	\$ 753,343	\$ 153,224
Indirect Expenses- SPP RE	\$ 307,390	\$ 433,348	\$ 125,958
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Total Funding Requirement	\$ 1,912,600	\$ 2,540,152	\$ 627,552

Program Scope and Functional Description

The Reliability Assessment and Performance Analysis Program is required under the Regional Entity Delegation Agreement, as well as NERC Rules of Procedure, Section 800. SPP RE direct and Shared Staff members available as consultants to the Regional Entity support NERC's efforts in preparing three reliability assessments each year: a long-term reliability assessment (LTRA) report, a summer assessment report, and a winter assessment report. These reports analyze electricity demand and adequacy of supply throughout the North American bulk power system, as well as examine the adequacy of the transmission system.

SPP RE direct staff participates in numerous meetings each year with the Shared Staff during the development of the models and the performance of studies leading up to the issuance of the annual reliability assessments. Once each assessment has been prepared internally by SPP RE direct staff and the SPP Shared Staff, the SPP RE, in the spirit of transparency, discusses the process, assumptions, and findings at a public Trustees meeting. The Trustees endorse the assessments.

SPP Shared Staff also conduct inter-regional studies and other planning studies.

SPP RE is responsible for overseeing and conducting Event Analyses on reliability events within the SPP RE footprint. The analysis may be conducted by the entity involved in the event, an assigned SPP Working Group/Committee, a technical team comprised of industry experts or may be conducted by the RE, NERC or FERC staff. SPP RE is responsible for producing a final technical report on each reportable event and for cause coding. Any issues that surface which may lead to standards compliance questions will be handled through the CMEP portion of this Business Plan.

2017 Key Assumptions

SPP RE expects to continue to utilize SPP Shared Staff to assist SPP RE in fulfilling its non-CMEP activities in this program. Key assumptions shared by NERC and the Regional Entities affecting the SPP RE budget in this program area include:

- NERC and the Regional Entities will prioritize and budget for a long-term and two seasonal reliability assessments per year;

- SPP RE will support the development of short-term reliability assessments (6-18 month horizon) and special studies requested by NERC;
- SPP RE will continue to support the NERC’s Planning Committee and its standing committees including the Reliability Assessment Subcommittee;
- NERC and the Regional Entities will continue to define clear, uniform criteria/ranking for reporting and categorizing of system events and security incidents;
- NERC and the Regional Entities will continue to work together to develop joint processes and resourcing for triage, analysis, and reporting of system events to the regulators and will coordinate with regulators regarding these issues;
- NERC and the Regional Entities will provide timely publication of lessons learned and recommendations and track responses to recommendations;
- NERC and the Regional Entities will continue to process and encourage prompt and complete self-analysis of events and disturbances to promote continuous improvement and information sharing;
- Support cause coding of events for trend analysis purposes; and
- The number of events requiring review and analysis are expected to remain at approximately the same level as 2016.

2017 Goals and Key Deliverables

- Maintain and host a library of solved power flow models, a system dynamics database, and dynamics simulation cases for use by regional reliability organizations and their registered entities to assist with planning and evaluating future systems and current operating conditions;
- Provide regional technical input to NERC’s reliability assessments each year: a long-term reliability assessment report, seasonal assessment reports and shorter-term focused reports. Perform an annual Probabilistic Assessment in support of the LTRA;
- Participate in NERC meetings to discuss reliability assessment and analyses of the impact of these assessments;
- Conduct inter-regional and other planning studies, including participation in the Eastern Interconnection Reliability Assessment Group (ERAG);
- Participate in NERC’s model validation efforts;
- Investigate, assess, and report on the potential impacts of new and evolving electricity market practices, new or proposed regulatory procedures, and new or proposed legislation (e.g., environmental requirements) on the adequacy and operating reliability of the bulk power system;
- Maintain a working dialog on bulk power system reliability and adequacy issues with SPP members;

- Support development of an expanded ERO data collection and analysis system to improve performance analysis of the BPS; and
- Participate actively in the following NERC working groups/committees/task forces:
 - Event Analysis Subcommittee (EAS)
 - Reliability Assessment Subcommittee (RAS)
 - Performance Analysis Subcommittee (PAS)
 - Generator Availability Data System Working Group (GADSWG)
 - Transmission Availability Data System Working Group (TADSWG)
 - Demand Response Availability Data System Working Group (DADSWG)

Resource Requirements

Personnel

SPP RE staff personnel expects to remain consistent with 2016 and includes a modest increase to recognize the enforcement staff's participation on the data working groups. Shared Staff is expected to increase by 1.0 FTE due to the increasing number and scope of the annual reliability assessments and special engineering studies being requested by NERC.

Contracts and Consultants

Development of the Engineering Model Data Validation project was halted in early 2016. A change in the project's scope and vendor will cause the project to carry over into 2017. \$150,000 has been budgeted for completion of the project.

Statement of Activities and Capital Expenditures 2016 Budget & Projection, and 2017 Budget

Reliability Assessment and Performance Analysis

	2016 Budget	2016 Projection	Variance 2016 Projection v 2016 Budget Over(Under)	2017 Budget	Variance 2017 Budget v 2016 Budget Over(Under)
Funding					
SPP RE Funding					
SPP RE Assessments	\$ 1,873,479	\$ 1,873,479	\$ -	\$ 2,453,341	\$ 579,863
Penalty Sanctions	39,122	39,122	-	86,811	47,689
Total SPP RE Funding	\$ 1,912,600	\$ 1,912,600	\$ -	\$ 2,540,152	\$ 627,552
Membership Dues	-	-	-	-	-
Federal Grants	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 1,912,600	\$ 1,912,600	\$ -	\$ 2,540,152	\$ 627,552
Expenses					
Personnel Expenses					
Salaries	\$ 728,223	\$ 728,223	\$ -	\$ 895,372	\$ 167,149
Payroll Taxes	55,709	55,709	-	68,496	12,787
Benefits	56,430	56,430	-	62,778	6,348
Retirement Costs	29,129	29,129	-	35,815	6,686
Total Personnel Expenses	\$ 869,491	\$ 869,491	\$ -	\$ 1,062,461	\$ 192,970
Meeting Expenses					
Meetings	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	105,000	105,000	-	110,000	5,000
Conference Calls	-	-	-	-	-
Total Meeting Expenses	\$ 105,000	\$ 105,000	\$ -	\$ 110,000	\$ 5,000
Operating Expenses					
Consultants & Contracts	\$ 25,000	\$ 25,000	\$ -	\$ 181,000	\$ 156,000
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	2,600	2,600	-	-	(2,600)
Miscellaneous	3,000	3,000	-	-	(3,000)
Depreciation	-	-	-	-	-
Total Operating Expenses	\$ 30,600	\$ 30,600	\$ -	\$ 181,000	\$ 150,400
Total Direct Expenses	\$ 1,005,091	\$ 1,005,091	\$ -	\$ 1,353,461	\$ 348,370
SPP Inc. Indirect Expenses	\$ 600,119	\$ 600,119	\$ -	\$ 753,343	\$ 153,224
SPP RE Indirect Expenses	307,390	308,803	1,413	433,348	125,958
Total Indirect Expenses	\$ 907,509	\$ 908,922	\$ 1,413	\$ 1,186,691	\$ 279,182
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 1,912,600	\$ 1,914,013	\$ 1,413	\$ 2,540,152	\$ 627,552
Change in Assets	\$ -	\$ (1,413)	\$ (1,413)	\$ -	\$ 1
Fixed Assets					
Depreciation	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-
Inc (Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ 1,912,600	\$ 1,914,013	\$ 1,413	\$ 2,540,152	\$ 627,552
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ -	\$ (1,413)	\$ (1,413)	\$ -	\$ -
FTEs	5.63	5.63	-	6.75	1.13

Training, Education, and Operator Certification Program

Training, Education and Operator Certification (in whole dollars)			
	2016 Budget	2017 Budget	Increase (Decrease)
Total FTEs	0.50	-	(0.50)
Direct Expenses*	\$ 147,100	\$ 60,000	\$ (87,100)
Indirect Expenses- SPP Inc.	\$ 53,344	\$ -	\$ (53,344)
Indirect Expenses- SPP RE	\$ 44,988	\$ 19,211	\$ (25,777)
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Total Funding Requirement	\$ 245,432	\$ 79,211	\$ (166,222)
* To maintain confidentiality, Personnel Expenses are included in Compliance and General & Administrative.			

Program Scope and Functional Description

The Training, Education, and Operator Certification Program is required under the Regional Entity Delegation Agreement, as well as NERC Rules of Procedure, Section 900. SPP RE Staff design, develop, and conduct training and education via workshops, newsletters, webinars, SPP RE Trustee meetings, and videos.

Operator Certification Training is provided by SPP RTO staff, and as such, the expenses for this training continue to be excluded from the SPP RE budget and are included in the SPP, Inc. budget.

2017 Key Assumptions

SPP RE will continue its outreach activities designed to increase regional BPS reliability, educate stakeholders about compliance matters, inform stakeholders of emerging issues and compliance program changes. NERC will continue to budget and incur the cost of a unified learning system for the regional CEA staff and work with the Registered Entities to consolidate training resources. This promotes better coordination, planning, delivery and management of training efforts across the enterprise without adversely impacting region-specific training requirements.

2017 Goals and Key Deliverables

- Host three compliance workshops, one focused on CIP;
- Publish a monthly newsletter;
- Present at least six compliance webinars or training videos; and
- Maintain an online training video library to share compliance information with stakeholders.

Resource Requirements

Personnel

The personnel expenses for the Training and Education program coordinator are accounted for within the General and Administrative program (50%) and the Compliance Program (50%). The net (0.5 FTE) decrease is due to the completion of the outreach being conducted prior to the implementation of CIP V5 by the CIP audit staff. Post-CIP V5 implementation outreach will continue to be performed by CIP auditors with the FTEs accounted for in the Compliance Program Area.

Statement of Activities and Capital Expenditures 2016 Budget & Projection, and 2017 Budget

Training and Education

	2016 Budget	2016 Projection	Variance 2016 Projection v 2016 Budget Over(Under)	2017 Budget	Variance 2017 Budget v 2016 Budget Over(Under)
Funding					
SPP RE Funding					
SPP RE Assessments	\$ 241,955	\$ 241,955	\$ -	\$ 79,211	\$ (162,744)
Penalty Sanctions	3,477	3,477	-	-	(3,477)
Total SPP RE Funding	<u>\$ 245,432</u>	<u>\$ 245,432</u>	<u>\$ -</u>	<u>\$ 79,211</u>	<u>\$ (166,222)</u>
Membership Dues	-	-	-	-	-
Federal Grants	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	<u>\$ 245,432</u>	<u>\$ 245,432</u>	<u>\$ -</u>	<u>\$ 79,211</u>	<u>\$ (166,222)</u>
Expenses					
Personnel Expenses					
Salaries	\$ 64,563	\$ 64,563	\$ -	\$ -	\$ (64,563)
Payroll Taxes	4,939	4,939	-	-	(4,939)
Benefits	5,016	5,016	-	-	(5,016)
Retirement Costs	2,583	2,583	-	-	(2,583)
Total Personnel Expenses	<u>\$ 77,100</u>	<u>\$ 77,100</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (77,100)</u>
Meeting Expenses					
Meetings	\$ 50,000	\$ 50,000	\$ -	\$ 60,000	\$ 10,000
Travel	20,000	20,000	-	-	(20,000)
Conference Calls	-	-	-	-	-
Total Meeting Expenses	<u>\$ 70,000</u>	<u>\$ 70,000</u>	<u>\$ -</u>	<u>\$ 60,000</u>	<u>\$ (10,000)</u>
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Depreciation	-	-	-	-	-
Total Operating Expenses	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Direct Expenses	<u>\$ 147,100</u>	<u>\$ 147,100</u>	<u>\$ -</u>	<u>\$ 60,000</u>	<u>\$ (87,100)</u>
SPP Inc. Indirect Expenses	\$ 53,344	\$ 53,344	-	\$ -	\$ (53,344)
SPP RE Indirect Expenses	44,988	45,195	-	19,211	(25,777)
Total Indirect Expenses	<u>\$ 98,332</u>	<u>\$ 98,539</u>	<u>\$ 207</u>	<u>\$ 19,211</u>	<u>\$ (79,121)</u>
Other Non-Operating Expenses	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Total Expenses (B)	<u>\$ 245,432</u>	<u>\$ 245,639</u>	<u>\$ 207</u>	<u>\$ 79,211</u>	<u>\$ (166,222)</u>
Change in Assets	<u>\$ -</u>	<u>\$ (207)</u>	<u>\$ (207)</u>	<u>\$ -</u>	<u>\$ (2)</u>
Fixed Assets	\$ -	\$ -	\$ -	\$ -	\$ -
Depreciation	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-
Inc (Dec) in Fixed Assets (C)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
TOTAL BUDGET (=B + C)	\$ 245,432	\$ 245,639	\$ 207	\$ 79,211	\$ (166,222)
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	<u>\$ -</u>	<u>\$ (207)</u>	<u>\$ (207)</u>	<u>\$ -</u>	<u>\$ -</u>
FTEs	0.50	0.50	-	-	(0.50)

Situation Awareness and Infrastructure Security Program

Situation Awareness and Infrastructure Security (in whole dollars)			
	2016 Budget	2017 Budget	Increase (Decrease)
Total FTEs	0.13	0.13	-
Direct Expenses	\$ 21,362	\$ 22,286	\$ 924
Indirect Expenses- SPP Inc.	\$ 13,336	\$ 13,951	\$ 615
Indirect Expenses- SPP RE	\$ 6,533	\$ 7,135	\$ 602
Inc(Dec) in Fixed Assets	\$ -	\$ -	\$ -
Total Funding Requirement	\$ 41,232	\$ 43,372	\$ 2,141

Program Scope and Functional Description

The Situation Awareness and Infrastructure Security Program is required under the Regional Entity Delegation Agreement, as well as NERC Rules of Procedure, Section 1000.

NERC coordinates electric industry activities to promote critical infrastructure protection of the bulk power system in North America. NERC has a leadership role in the critical infrastructure protection of the electricity sector to reduce vulnerability and improve mitigation and protection of the electricity sector's critical infrastructure. NERC acts as the electricity sector's Sector Coordinator and operates its Information Sharing and Analysis Center to gather and communicate information about security-related threats within the sector, United States and Canadian governmental authorities, and other critical infrastructure sectors. NERC also performs security planning activities focused on the critical infrastructure protection of the electricity sector, including sharing sensitive or classified information with federal, state, and provincial governmental authorities.

SPP Reliability Coordinator actively participates in NERC critical infrastructure protection activities and serves as an information conduit between NERC and SPP members. These activities are non-statutory. SPP also sponsors a Critical Infrastructure Protection Working Group (CIPWG), which:

- Serves as an expert advisory panel to the SPP Board of Directors, committees, and members, provides a forum for discussion of physical and cyber security issues within the SPP Region;
- Provides general guidance to SPP members on CIP Standards and related compliance efforts; and
- Serves as the interface between the NERC Critical Information Protection Committee (CIPC) and the SPP membership, including:
 - Serving as a conduit for information flow between the CIPC and SPP members

- Developing guidance and recommendations to CIPC members representing the SPP

The CIPWG consists of SPP members who are subject to the NERC CIP Cyber Security Standards and is facilitated by an SPP staff member. The working group meets quarterly at a member location. Additional meetings and conference calls are scheduled as required.

SPP RE is represented on the CIPC by three SPP member company representatives who represent the physical, cyber, and operations disciplines. Per the SPP Bylaws, SPP RE reimburses the member representatives for travel expenses incurred while performing CIPC responsibilities.

CIP compliance monitoring and enforcement is included in Compliance Monitoring and Enforcement and Organization Registration and Certification Program.

2017 Key Assumptions

In addition to the assumptions that are shared among NERC and the Regional Entities, SPP RE expects the continued support of the SPP CIPWG, and continued support for CIPC participation from designated SPP member representatives.

2017 Goals and Key Deliverables

- Continue sponsoring the Critical Infrastructure Protection Working Group (CIPWG)
 - Continue quarterly meetings
 - Maintain and Increase CIPWG membership
 - Provide registered entities-only discussion periods regarding CIP compliance progress
 - Provide a discussion forum for NERC-requested comments and ballot issues
- Provide enhanced support to SPP registered entities about CIP Standards
 - Provide general recommendations and discussion/outreach forum for CIP Version 5 implementation issues
 - Provide general recommendations on appropriate security best practices
 - Provide opportunities for technical and compliance-related training
 - Maintain the CIPWG electronic mail lists for group discussion of CIP-related issues
- Continue supporting CIPC attendance by CIPWG representatives
 - Reimburse expenses for Physical, Cyber, and Operations representatives (or designated alternates)

Resource Requirements

Personnel

There is no change to the budgeted FTEs for this program area.

Situation Awareness and Infrastructure Security Program

Statement of Activities and Capital Expenditures 2016 Budget & Projection, and 2017 Budget

Situation Awareness and Infrastructure Security

	2016 Budget	2016 Projection	Variance 2016 Projection v 2016 Budget Over(Under)	2017 Budget	Variance 2017 Budget v 2016 Budget Over(Under)
Funding					
SPP RE Funding					
SPP RE Assessments	\$ 40,362	\$ 40,362	\$ -	\$ 41,765	\$ 1,403
Penalty Sanctions	869	869	-	1,608	738
Total SPP RE Funding	\$ 41,232	\$ 41,232	\$ -	\$ 43,372	\$ 2,141
Membership Dues	-	-	-	-	-
Federal Grants	-	-	-	-	-
Services & Software	-	-	-	-	-
Workshops	-	-	-	-	-
Interest	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Total Funding (A)	\$ 41,232	\$ 41,232	\$ -	\$ 43,372	\$ 2,141
Expenses					
Personnel Expenses					
Salaries	\$ 18,010	\$ 18,010	\$ -	\$ 18,969	\$ 959
Payroll Taxes	1,378	1,378	-	1,451	73
Benefits	1,254	1,254	-	1,107	(147)
Retirement Costs	720	720	-	759	38
Total Personnel Expenses	\$ 21,362	\$ 21,362	\$ -	\$ 22,286	\$ 924
Meeting Expenses					
Meetings	\$ -	\$ -	\$ -	\$ -	\$ -
Travel	-	-	-	-	-
Conference Calls	-	-	-	-	-
Total Meeting Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Operating Expenses					
Consultants & Contracts	\$ -	\$ -	\$ -	\$ -	\$ -
Office Rent	-	-	-	-	-
Office Costs	-	-	-	-	-
Professional Services	-	-	-	-	-
Miscellaneous	-	-	-	-	-
Depreciation	-	-	-	-	-
Total Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Direct Expenses	\$ 21,362	\$ 21,362	\$ -	\$ 22,286	\$ 924
SPP Inc. Indirect Expenses	\$ 13,336	\$ 13,336		\$ 13,951	\$ 615
SPP RE Indirect Expenses	6,533	6,563		7,135	602
Total Indirect Expenses	\$ 19,869	\$ 19,899	\$ 30	\$ 21,086	\$ 1,217
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ 41,232	\$ 41,262	\$ 30	\$ 43,372	\$ 2,142
Change in Assets	\$ -	\$ (30)	\$ (30)	\$ -	\$ (1)
Fixed Assets					
Depreciation	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-
Inc (Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ 41,232	\$ 41,262	\$ 30	\$ 43,372	\$ 2,142
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ -	\$ (30)	\$ (30)	\$ -	\$ (1)
FTEs	0.13	0.13	-	0.13	-

Administrative Services

	Administrative Services					
	Direct Expense and Fixed Assets (in whole dollars)			FTEs		
	2016 Budget	2017 Budget	Inc(Dec)	2016 Budget	2017 Budget	Inc(Dec)
General and Administrative	\$ 1,671,109	\$ 1,856,983	185,874	4.50	4.50	-
Technical Committee and Members Forums	\$ -	\$ -	-	0.00	-	-
Legal and Regulatory	\$ -	\$ -	-	0.00	-	-
Information Technology	\$ -	\$ -	-	0.00	-	-
Human Resources	\$ -	\$ -	-	0.00	-	-
Finance and Accounting	\$ -	\$ -	-	0.00	-	-
Total Administrative Services	\$ 1,671,109	\$ 1,856,983	185,874	4.50	4.50	-

General and Administrative

Program Scope and Functional Description

The General and Administrative function consists of the RE General Manager, the RE Manager of Regulatory Interface and Process Improvement, RE Administrative Assistant, RE Outreach Coordinator, RE Business Analyst II, and three to four independent Regional Entity Trustees.

The RE Trustees, who are independent of the SPP Board of Directors, any SPP member, SPP registered entity, industry stakeholder, or organizational group, have autonomy over decisions in fund allocation and approval of the SPP RE budget, as well as decisions on regional standards, compliance enforcement actions, and penalties. The SPP Bylaws were amended in 2016 to allow up to four RE Trustees therefore an additional Trustee has been budgeted for 2017.

The RE General Manager provides executive level support through, among other means, participation in meetings and conference calls with other Regional Entities and Senior NERC staff. The RE General Manager reports directly to the three independent RE Trustees.

The RE Manager of Regulatory Interface and Process Improvement is responsible for coordinating and developing the SPP RE processes for SPP RE's Regulatory Interface and performing process improvement activities for the RE operational program functions, including internal auditing of SPP RE's processes. The RE Manager of Regulatory Interface and Process Improvement also coordinates and facilitates the development of compliance plans, policies, and procedures and implementation of appropriate systems/software for the SPP RE compliance monitoring and enforcement activities to enhance implementation of the NERC Compliance Monitoring and Enforcement Program (CMEP) and Rules of Procedure (RoP).

The RE Business Analyst II is responsible for managing the CMEP software (webCDMS) and provides support to all SPP RE programs and SPP RE direct staff members.

2017 Key Assumptions

- SPP RE continues to operate as an independent and functionally separate division of SPP;

2017 Goals and Key Deliverables

- Ensure that SPP RE fulfills the responsibilities of the Regional Delegation Agreement between SPP and NERC;
- Ensure that SPP RE is adequately staffed and has the resources needed to fulfill the responsibilities of the Regional Entity Delegation Agreement between SPP and NERC; and
- Continue to explore opportunities to enhance the effectiveness and efficiency of SPP RE in promoting and improving the reliability of the bulk power system.

Resource Requirements**Personnel**

The SPP Bylaws were changed to allow for one additional Trustee. There is no change to the budgeted FTEs for this program area.

Technical Committees and Member Forums**Program Scope and Functional Description**

SPP RE provides forums for registered entities within its footprint to discuss and share reliability concerns. This includes SPP committees, subcommittees, working groups, and task forces that are grouped by technical areas. The expenses incurred by SPP RE for these forums are included in the direct expenses of the applicable program.

SPP RE also conducts a minimum of three public workshops per year where registered entities are able to interact with SPP RE Staff and NERC staff and discuss reliability issues. These expenses are included in the Training, Education, and Operator Certification Program.

2017 Key Assumptions

- SPP RE liaisons to SPP working groups are projected to attend approximately 30 SPP working group meetings in 2017.

2017 Goals and Key Deliverables

- Provide input on ERO and RE issues, including but not limited to the NERC Members Representative Committee and other NERC standing committees.

Resource Requirements**Personnel**

N/A

Legal and Regulatory**Program Scope and Functional Description**

SPP RE has a Manager of Enforcement and Legal who provides exclusive legal support to SPP RE. The expenses related to the Manager of Enforcement and Legal and Regulatory are included

in the Compliance Enforcement and Organization Registration Program area. If SPP RE is required to convene hearings under the Compliance Enforcement and Organization Registration program, independent hearing officers and outside legal counsel may be utilized.

2017 Key Assumptions

N/A

2017 Goals and Key Deliverables

N/A

Resource Requirements

Personnel

N/A

Contractors and Consultants

N/A

Information Technology

Program Scope and Functional Description

The SPP Information Technology department provides resources for SPP RE to fulfill the responsibilities of the RE Delegation Agreement.

2017 Key Assumptions

- The SPP Information Technology department continues to provide resources for SPP RE;
- NERC and the Regional Entities will collaboratively work to refine existing strategies, governance and procurement practices applicable to the development, operation and maintenance of enterprise architecture, software and data systems supporting both NERC and Regional Entity operations. NERC's business plan and budget will include ongoing funding support for the development, operation and maintenance of NERC and Regional Entity approved enterprise applications. Enterprise application funding in any given year will be subject to the budget and funding limits set forth in NERC's approved business plan and budget;
- SPP RE will include appropriate funding for applications and supporting systems designed to satisfy Regional business needs that are not within the mutually agreed upon scope of the ERO Enterprise applications which are funded by NERC; and
- The costs for IT services to support all RE programs are accounted for within the SPP, Inc. Indirect Expenses. The SPP, Inc. cost for IT services does not include funding for the development of NERC's ERO Enterprise IT applications.

2017 Goals and Key Deliverables

- To provide adequate information technology support for SPP RE to fulfill the responsibilities of the Regional Entity Delegation Agreement between SPP and NERC.

Resource Requirements

Personnel

N/A

Human Resources

Program Scope and Functional Description

The SPP Human Resource department provides resources for SPP RE to fulfill the responsibilities of the RE Delegation Agreement.

2017 Key Assumptions

- The SPP Human Resource department continues to provide resources for SPP RE.

2017 Goals and Key Deliverables

- To provide adequate human resource support for SPP RE to fulfill the responsibilities of the Regional Entity Delegation Agreement between SPP and NERC.

Resource Requirements

Personnel

N/A

Finance and Accounting

Program Scope and Functional Description

The SPP Accounting department provides resources for SPP RE to fulfill the responsibilities of the RE Delegation Agreement.

2017 Key Assumptions

- The SPP Accounting department continues to provide resources for SPP RE.

2017 Goals and Key Deliverables

- To provide adequate accounting and finance support for SPP RE to fulfill the responsibilities of the Regional Entity Delegation Agreement between SPP and NERC.

Resource Requirements

Personnel

N/A

Methodology for Allocation of Administrative Services Expenses to Programs

The expenses for finance and accounting, information technology, and human resources administrative support services that are provided to SPP RE by SPP (SPP, Inc. Indirect Expenses),

which are separate and distinct from the services provided by SPP RE direct staff and consultants and contractors, are assessed to SPP RE on an annual basis by allocating SPP's shared services support costs by an appropriate measure (headcount, square footage, number of devices, etc.). In addition, an allocation of overhead costs will be added to the directly assignable staff's hourly rate for those employees performing SPP's statutory activities in the RAPA program area. A table showing the derivation of the SPP, Inc. Indirect Expense is presented in Section E of this BP&B.

SPP RE Administrative Services Expenses, which are limited to expenses incurred for SPP RE General and Administrative, are allocated among the five operational programs based on each program's pro rata share of the total direct operational program expense.

Administrative Services

Statement of Activities and Capital Expenditures					
2016 Budget & Projection, and 2017 Budget					
ADMINISTRATIVE SERVICES					
	2016 Budget	2016 Projection	Variance 2016 Projection v 2016 Budget Over(Under)	2017 Budget	Variance 2017 Budget v 2016 Budget Over(Under)
Funding					
SPP RE Funding					
SPP RE Assessments	\$ (1,276,068)	\$ (1,276,068)	\$ (0)	\$ (1,530,708)	\$ (254,640)
Penalty Sanctions	\$ -	\$ -	-	\$ -	-
Total SPP RE Funding	\$ (1,276,068)	\$ (1,276,068)	\$ (0)	\$ (1,530,708)	\$ (254,640)
Membership Dues	\$ -	-	-	\$ -	-
Federal Grants	\$ -	-	-	\$ -	-
Services & Software	\$ -	-	-	\$ -	-
Workshops	\$ -	-	-	\$ -	-
Interest	\$ -	-	-	\$ -	-
Miscellaneous	\$ -	-	-	\$ -	-
Total Funding (A)	\$ (1,276,068)	\$ (1,276,068)	\$ (0)	\$ (1,530,708)	\$ (254,640)
Expenses					
Personnel Expenses					
Salaries	\$ 693,898	\$ 693,898	\$ -	\$ 787,145	\$ 93,247
Payroll Taxes	53,083	\$ 53,083	-	\$ 60,217	7,133
Benefits	55,176	\$ 55,176	-	\$ 58,708	3,532
Retirement Costs	27,756	\$ 27,756	-	\$ 31,486	3,730
Total Personnel Expenses	\$ 829,913	\$ 829,913	\$ -	\$ 937,555	\$ 107,642
Meeting Expenses					
Meetings	\$ 25,000	\$ 25,000	\$ -	\$ 25,000	\$ -
Travel	105,000	\$ 105,000	-	\$ 120,000	15,000
Conference Calls	-	\$ -	-	\$ -	-
Total Meeting Expenses	\$ 130,000	\$ 130,000	\$ -	\$ 145,000	\$ 15,000
Operating Expenses					
Consultants & Contracts	\$ 57,000	\$ 57,000	\$ -	\$ 61,100	\$ 4,100
Office Rent	-	\$ -	-	\$ -	-
Office Costs	8,000	\$ 8,000	-	\$ 10,000	2,000
Professional Services	146,100	\$ 146,100	-	\$ 201,100	55,000
Miscellaneous	20,000	\$ 20,000	-	\$ -	(20,000)
Depreciation	-	\$ -	-	\$ -	-
Total Operating Expenses	\$ 231,100	\$ 231,100	\$ -	\$ 272,200	\$ 41,100
Total Direct Expenses	\$ 1,191,013	\$ 1,191,013	\$ -	\$ 1,354,755	\$ 163,742
SPP Inc. Indirect Expenses	\$ 480,096	\$ 480,096	\$ -	\$ 502,228	\$ 22,132
SPP RE Indirect Expenses	\$ (1,276,068)	\$ (1,671,109)	\$ -	\$ (1,856,983)	\$ (580,915)
Other Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	\$ -
Total Expenses (B)	\$ -	\$ -	\$ -	\$ -	\$ -
Change in Assets	\$ (1,276,068)	\$ (1,276,068)	\$ (0)	\$ (1,530,708)	\$ (254,640)
Fixed Assets					
Depreciation	\$ -	\$ -	\$ -	\$ -	-
Computer & Software CapEx	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-
Equipment CapEx	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-
Inc (Dec) in Fixed Assets (C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL BUDGET (=B + C)	\$ -	\$ -	\$ -	\$ -	\$ -
TOTAL CHANGE IN WORKING CAPITAL (=A-B-C)	\$ (1,662,962)	\$ (1,276,068)	\$ (0)	\$ (1,530,708)	\$ (254,640)
FTEs	4.50	4.50	-	4.50	-

Section B – Supplemental Financial Information
2017 Business Plan and Budget



Section B — Supplemental Financial Information

Reserve Balance

Table B-1

Working Capital Reserve Analysis 2016-2017

STATUTORY

Beginning Working Capital Reserve (Deficit), December 31, 2015	\$	3,261,209
Less Penalties Received 7/1/2015- 12/31/2015		63,750
Less: 2015 Year-End True-Up		(184,564)
Reserve for Engineering Data Tool		(165,619)
Plus: 2016 SPP RE Funding (from LSEs or designees)		8,626,751
Less: 2016 Projected expenses & capital expenditures		(10,070,819)
Projected Working Capital Reserve (Deficit), December 31, 2016		1,530,708
Desired Working Capital Reserve, December 31, 2015	² \$	-
Less: Projected Working Capital Reserve, December 31, 2016		(1,530,708)
Increase(decrease) in assessments to achieve desired Working Capital Reserve		(1,530,708)
2016 Expenses and Capital Expenditures		10,865,511
Less: Penalty sanctions to be used as offset to 2017 assessments	¹	(369,750)
Less: Other Funding Sources		0
Adjustment to achieve desired Working Capital Reserve		(1,530,708)
2017 SPP RE Assessment		8,965,053

¹ Represents collections on or prior to June 30, 2016. See Table B-2 for full disclosure.

² The SPP RE does not require a working capital reserve in that on a cash basis SPP, Inc. is able to fund shortfalls in its statutory

Explanation of Changes in Reserve Policy from Prior Years

There have not been any changes in the SPP RE Reserve Policy. SPP RE does not maintain a working capital reserve. The expenses incurred by SPP RE are paid by SPP, Inc. from its operating cash balances and then reimbursed from SPP RE statutory funding on a monthly basis. If at any time SPP RE does not have sufficient statutory funds to finance its expenses, the statutory funding will be increased by the amount of the deficiency in the following year. When the funding is received from NERC, the SPP RE General Manager will authorize a reimbursement to SPP, Inc. for the amount of the shortfall. If needed, a line of credit is also available to SPP, Inc. to fund any shortfalls. SPP, Inc. would not charge any interest or penalties to SPP RE in the case of a shortfall.

Breakdown by Statement of Activity Sections

The following detailed schedules are in support of Statement of Activities and Capital Expenditures on page 8 of the 2016 RE Business Plan and Budget.

Penalty Sanctions

Penalty monies received from July 1, 2015 through June 30, 2016 will be used to offset assessments in the 2017 Budget, as documented in the NERC Policy – ACCOUNTING, FINANCIAL STATEMENT AND BUDGETARY TREATMENT OF PENALTIES IMPOSED AND RECEIVED FOR VIOLATIONS OF RELIABILITY STANDARD.

All penalties received prior to June 30, 2016 are detailed on the following page, including the amount and date received.

Allocation Method: Penalty sanctions received have been allocated to the following statutory programs to reduce assessments: Reliability Standards; Compliance Monitoring & Enforcement and Organization Registration & Certification; Reliability Assessments and Performance Analysis; Training, Education and Operator Certification; and Situation Awareness and Infrastructure Security. Penalty sanctions are allocated based upon the number of FTEs in the Program divided by the aggregate total FTEs in the Programs receiving the allocation.

Table B-2

Name of Entity	Date Received	Amount Received
Entity 1	12/8/15	\$ 63,750.00
Entity 2	2/19/16	\$ 44,000.00
Entity 3	3/9/16	\$ 27,000.00
Entity 4	3/24/16	\$ 235,000.00
Total Penalties Received		<u>\$ 369,750</u>

Supplemental Funding

Table B-3

Outside Funding Breakdown By Program (excluding SPP RE Assessments & Penalty Sanctions)	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget
Reliability Standards	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Compliance Monitoring, Enforcement & Org. Registration	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Reliability Assessment and Performance Analysis	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Training and Education	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Situation Awareness and Infrastructure Security	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Technical Committees and Member Forums				
Total	\$ -	\$ -	\$ -	\$ -
General and Administrative	\$ -	\$ -	\$ -	\$ -
Total	\$ -	\$ -	\$ -	\$ -
Total Outside Funding	\$ -	\$ -	\$ -	\$ -

Explanation of Significant Variances – 2017 Budget versus 2016 Budget

SPP RE has not projected any interest income for 2017 because at the current market interest rate any interest income would be minimal.

Personnel Expenses**Table B-4**

Personnel Expenses	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %
Salaries					
Salaries	\$ 3,896,492	3,896,492	\$ 4,385,605	\$ 489,113	12.6%
Employment Agency Fees	-	-	-	-	
Temporary Office Services	-	-	-	-	
Total Salaries	\$ 3,896,492	\$ 3,896,492	\$ 4,385,605	\$ 489,113	12.6%
Total Payroll Taxes	\$ 298,082	\$ 298,082	\$ 335,499	\$ 37,417	12.6%
Benefits					
Workers Compensation	\$ -	\$ -	\$ -	\$ -	
Medical Insurance	276,858	276,858	297,358	20,500	7.4%
Life-LTD-LTC Insurance	20,014	20,014	21,496	1,482	7.4%
Education	36,692	36,692	39,409	2,717	7.4%
Relocation	-	-	-	-	
Total Benefits	\$ 333,564	\$ 333,564	\$ 358,263	\$ 24,699	7.4%
Retirement					
Discretionary 401k Contribution	\$ 155,860	\$ 155,860	\$ 175,424	\$ 19,565	12.6%
Savings Plan	-	-	-	-	
Total Retirement	\$ 155,860	\$ 155,860	\$ 175,424	\$ 19,565	12.6%
Total Personnel Costs	\$ 4,683,997	\$ 4,683,997	\$ 5,254,791	\$ 570,793	12.2%
FTEs	32.25	32.25	33.25	1.00	3.1%
Cost per FTE					
Salaries	\$ 120,821	\$ 120,821	\$ 131,898	11,076	9.2%
Payroll Taxes	9,243	9,243	10,090	847	9.2%
Benefits	10,343	10,343	10,775	432	4.2%
Retirement	4,833	4,833	5,276	443	9.2%
Total Cost per FTE	\$ 145,240	\$ 145,240	\$ 158,039	\$ 12,799	8.8%

Explanation of Significant Variances – 2017 Budget versus 2016 Budget

The increase in salaries is principally due to the budgeted merit increase combined with the increase in Shared Staff FTEs. The increase in Benefits is primarily due to the increase in Shared Staff FTEs.

Meetings, Travel and Conference Calls**Table B-5**

Meetings, Travel and Conference Calls	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %
Meetings	\$ 90,000	\$ 90,000	\$ 120,000	\$ 30,000	33%
Travel	680,200	\$ 655,200	\$ 537,000	(143,200)	-21%
Conference Calls	-	\$ -	\$ -	-	
Total Meetings, Travel & Conf Calls	\$ 770,200	\$ 745,200	\$ 657,000	\$ (113,200)	-15%

The decrease in travel expense is primarily due to the number of CIP audits for MRREs and the completion of CIP V5 outreach by the CIP audit team as well as a reduction in funds allocated for reimbursing travel expenses to participate in Standard Drafting Teams.

Consultants and Contracts

Table B-6

Consultants	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %
Consultants					
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance and Organization Registration and Certification	670,042	670,042	627,610	(42,432)	-6%
Reliability Readiness Evaluation and Improvement	-	-	-	-	
Reliability Assessment and Performance Analysis	25,000	25,000	181,000	156,000	624%
Training and Education	-	-	-	-	
Situation Awareness and Infrastructure Security	-	-	-	-	
Committee and Member Forums	-	-	-	-	
General and Administrative	57,000	57,000	60,000	3,000	5%
Legal and Regulatory	-	-	-	-	
Information Technology	-	-	-	-	
Human Resources	-	-	-	-	
Accounting and Finance	-	-	-	-	
Consultants Total	\$ 752,042	\$ 752,042	\$ 868,610	\$ 116,568	16%
Contracts					
Contracts	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %
Reliability Standards	\$ -	\$ -	\$ -	\$ -	
Compliance and Organization Registration and Certification	213,000	213,000	151,000	(62,000)	-29%
Reliability Readiness Evaluation and Improvement	-	-	-	-	
Reliability Assessment and Performance Analysis	-	-	-	-	
Training and Education	-	-	-	-	
Situation Awareness and Infrastructure Security	-	-	-	-	
Committee and Member Forums	-	-	-	-	
General and Administrative	-	-	1,100	1,100	
Legal and Regulatory	-	-	-	-	
Information Technology	-	-	-	-	
Human Resources	-	-	-	-	
Accounting and Finance	-	-	-	-	
Contracts Total	\$ 213,000	\$ 213,000	\$ 152,100	\$ (60,900)	-29%
Total Consulting and Contracts	\$ 965,042	\$ 965,042	\$ 1,020,710	\$ 55,668	6%

Explanation of Significant Variances – 2017 Budget versus 2016 Budget

The \$116,568 increase in consultant and contract costs is primarily due to the carry-over of the Engineering Data Validation software tool development into 2017 in the RAPA program offset by the reduction in the use of consultants in Compliance.

Table B-7

Office Rent	Budget 2015	Projection 2015	Budget 2016	Variance 2016 Budget v 2015 Budget	Variance %
Office Rent	\$ -	\$ -	\$ -	\$ -	-
Utilities	-	-	-	-	-
Maintenance	-	-	-	-	-
Security	-	-	-	-	-
Total Office Rent	\$ -	\$ -	\$ -	\$ -	-

Explanation of Significant Variances – 2017 Budget versus 2016 Budget

This cost is included in the SPP, Inc. Indirect Expense.

Table B-8

Office Costs	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %
Telephone	\$ -	\$ -	\$ -	\$ -	-
Internet	-	-	-	-	-
Office Supplies	8,000	8,000	10,000	2,000	
Computer Supplies and Maintenance	-	-	-	-	-
Publications & Subscriptions	-	-	-	-	-
Dues	-	-	-	-	-
Postage	-	-	-	-	-
Express Shipping	-	-	-	-	-
Copying	-	-	-	-	-
Reports	-	-	-	-	-
Equipment Repair/Service Contracts	-	-	-	-	-
Bank Charges	-	-	-	-	-
Taxes	-	-	-	-	-
Merchant Card Fees	-	-	-	-	-
Presentation & Publicity	-	-	-	-	-
Total Office Costs	\$ 8,000	\$ 8,000	\$ 10,000	\$ 2,000	

Explanation of Significant Variances – 2017 Budget versus 2016 Budget

Office Costs are included in the SPP, Inc. Indirect Expense. The \$2,000 increase is a general inflationary cost increase for supplies needed for RE workshops and RE Trustee meetings.

Table B-9

Professional Services	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %
Independent Trustee Fees	\$ 145,000	\$ 145,000	\$ 200,000	\$ 55,000	37.93%
Outside Legal	-	-	-	-	
Accounting & Auditing Fees	-	-	-	-	
Insurance Commercial	-	-	-	-	
Other	50,000	25,000	25,000	(25,000)	-50.00%
Total Services	\$ 495,000	\$ 170,000	\$ 225,000	\$ 30,000	6.06%

Explanation of Significant Variances – 2017 Budget versus 2016 Budget

The \$55,000 increase in Independent Trustee Fees is principally due to the addition of one Trustee. The \$25,000 decrease in Other Professional Services is due to the reduction of budgeted Standard Drafting Team travel reimbursement cost.

Table B-10

Other Non-Operating Expenses	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %
	\$ -	\$ -		\$ -	
	\$ -	\$ -		\$ -	
	\$ -	\$ -		\$ -	
Total Non-Operating Expenses	\$ -	\$ -	\$ -	\$ -	

Explanation of Significant Variances – 2017 Budget versus 2016 Budget

N/A

2017, 2018 and 2019 Projections

Table B-11

Statement of Activities and Capital Expenditures 2017 Budget & Projected 2018, 2019 and 2020 Budgets										
	2017 Budget	2018 Projection	\$ Change 18 v 17	% Change 18 v 17	2019 Projection	\$ Change 19 v 18	% Change 19 v 18	2020 Projection	\$ Change 20 v 19	% Change 20 v 19
Funding										
ERO Funding										
ERO Assessments	\$ 8,965,053	\$ 11,191,476	\$ 2,226,423	24.83%	\$ 11,527,221	\$ 335,744	2.9%	\$ 11,873,037	\$ 345,817	2.9%
Penalty Sanctions	369,750	-	(369,750)	-100.00%	-	-	-	-	-	-
Total ERO Funding	\$ 9,334,803	\$ 11,191,476	\$ 1,856,673	19.9%	\$ 11,527,221	\$ 335,744	2.9%	\$ 11,873,037	\$ 345,817	2.9%
Membership Dues	-	-	-	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-	-	-	-
Interest	-	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-
Total Funding	\$ 9,334,803	\$ 11,191,476	\$ 1,856,673	19.9%	\$ 11,527,221	\$ 335,744	3.0%	\$ 11,873,037	\$ 345,817	3.0%
Expenses										
Personnel Expenses										
Salaries	\$ 4,385,605	\$ 4,517,173	\$ 131,568	3.0%	\$ 4,652,688	\$ 135,515	3.0%	\$ 4,792,269	\$ 139,581	3.0%
Payroll Taxes	335,499	345,564	10,065	3.0%	355,931	10,367	3.0%	366,609	10,678	3.0%
Benefits	358,263	369,011	10,748	3.0%	380,081	11,070	3.0%	391,484	11,402	3.0%
Retirement Costs	175,424	180,687	5,263	3.0%	186,108	5,421	3.0%	191,691	5,583	3.0%
Total Personnel Expenses	\$ 5,254,791	\$ 5,412,435	\$ 157,644	3.0%	\$ 5,574,808	\$ 162,373	3.0%	\$ 5,742,052	\$ 167,244	3.0%
Meeting Expenses										
Meetings	\$ 120,000	\$ 123,600	\$ 3,600	3.0%	\$ 127,308	\$ 3,708	3.0%	\$ 131,127	\$ 3,819	3.0%
Travel	537,000	553,110	16,110	3.0%	569,703	16,593	3.0%	586,794	17,091	3.0%
Conference Calls	-	-	-	-	-	-	-	-	-	-
Total Meeting Expenses	\$ 657,000	\$ 676,710	\$ 19,710	3.0%	\$ 697,011	\$ 20,301	3.0%	\$ 717,922	\$ 20,910	3.0%
Operating Expenses										
Consultants & Contracts	\$ 1,020,710	\$ 1,051,331	\$ 30,621	3.0%	\$ 1,082,871	\$ 31,540	3.0%	\$ 1,115,357	\$ 32,486	3.0%
Office Rent	-	-	-	-	-	-	-	-	-	-
Office Costs	10,000	10,300	300	3.0%	10,609	309	3.0%	10,927	318	3.0%
Professional Services	212,100	218,463	6,363	3.0%	225,017	6,554	3.0%	231,767	6,751	3.0%
Miscellaneous	-	-	-	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	\$ 1,242,810	\$ 1,280,094	\$ 37,284	3.0%	\$ 1,318,497	\$ 38,403	3.0%	\$ 1,358,052	\$ 39,555	3.0%
Total Direct Expenses	\$ 7,154,601	\$ 7,369,239	\$ 214,638	3.0%	\$ 7,590,316	\$ 221,077	3.0%	\$ 7,818,026	\$ 227,709	3.0%
Indirect Expenses	\$ 3,710,910	\$ 3,822,237	\$ 111,327	3.0%	\$ 3,936,904	\$ 114,667	3.0%	\$ 4,055,012	\$ 118,107	3.0%
Other Non-Operating Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	-
Total Expenses	\$ 10,865,511	\$ 11,191,476	\$ 325,965	3.0%	\$ 11,527,221	\$ 335,744	3.0%	\$ 11,873,037	\$ 345,817	3.0%
Change in Assets	\$ (1,530,708)	\$ -	\$ 1,530,708	-100.0%	\$ -	\$ -	-	\$ -	\$ -	-
Fixed Assets										
Depreciation	\$ -	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	-
Computer & Software CapEx	-	-	-	-	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-	-	-	-
(Incr)Dec in Fixed Assets	\$ -	\$ -	\$ -	-	\$ -	\$ -	-	\$ -	\$ -	-
TOTAL CHANGE IN NET ASSETS	\$ (1,530,708)	\$ -	\$ 1,530,708	-100.0%	\$ -	\$ -	0.0%	\$ -	\$ -	0.0%
FTEs	33.25	33.25	0.00	0.0%	33.25	0.00	0.0%	33.25	0.00	0.0%

Explanation of 2018, 2019 and 2020 Projections

At this time, SPP RE does not anticipate material changes in its personnel or business operations for the next three years.

- No projected change in FTEs
- No projected change in operating costs other than inflationary adjustments
- Budgeted merit pay increases
- Assessment stabilization will be managed year by year

Section C – Non-Statutory Activities

2017 Business Plan and Budget



Section C — 2016 Non-Statutory Business Plan and Budget

Non-Statutory Functional Scope

As discussed in the Introduction, SPP is one of nine FERC-approved Independent System Operators/Regional Transmission Organizations (ISOs/RTOs). As an RTO, SPP helps ensure reliable supplies of power, adequate transmission infrastructure, and competitive wholesale prices of electricity. These activities are budgeted for separately from SPP RE and constitute the non-statutory activities further described below.

Membership and Governance (for non-statutory activities)

SPP is a relationship-based organization with member-driven processes offering independence through diversity in Organizational Group membership and recognition that reliability and economic/equity issues are inseparable. SPP strives to continuously improve and implement new concepts in a deliberate evolutionary manner.

SPP membership is voluntary and open to any electric utility, federal power marketing agency, transmission service provider, any entity engaged in the business of producing, selling and/or purchasing electric energy for resale, and any entity willing to meet the membership requirements, including execution of the Membership Agreement. Membership is also open to entities eligible to take service under the SPP Open Access Transmission Tariff (OATT). SPP offers its Members greater efficiency and service reliability through better coordination.

SPP members serve customers across 14 states (Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas and Wyoming)

SPP is governed in accordance with its Bylaws by an independent Board of Directors consisting of seven directors independent of any SPP Member. The Board of Directors works to ensure equity to all Members and acts in the best interest of SPP through its management, control and direction of the general business of SPP.

Non-Statutory Functional Scope

SPP is mandated by the Federal Energy Regulatory Commission (Commission) to ensure reliable supplies of power, adequate transmission infrastructure, and competitive wholesale prices of electricity.

SPP provides the following primary services to our members and customers:

Tariff Administration: SPP provides independent administration of the Open Access Transmission Tariff that offers one-stop shopping for regional transmission service with consistent rates and terms.

Reliability Coordination: SPP monitors power flow throughout our footprint. We anticipate problems and take preemptive action to mitigate operating limit violations. SPP coordinates regional response in emergency situations or blackouts.

Regional Scheduling: SPP ensures that the amount of power sent is coordinated and matched with power received. SPP's regional scheduling service reduces the number of entities with which SPP members and customers have to coordinate.

Market Operations: SPP began developing new energy markets in 2009 to bring additional regional benefit to our members. The Integrated Marketplace launched in 2014 and includes a Day-Ahead Market with Transmission Congestion Rights, a Reliability Unit Commitment process, a Real-Time Balancing Market, replacing the Energy Imbalance Marketplace, and the incorporation of price-based Operating Reserve Procurement. The Integrated Marketplace also consolidated SPP footprint's 16 legacy Balancing Authorities into an SPP Balancing Authority.

Expansion Planning: SPP's planning process seeks to identify system limitations and develop transmission upgrades for increased capacity.

Contract Services: SPP provides reliability, tariff administration, and scheduling for non-members on a contract basis.

Finally, as a Public Utility under the Federal Power Act, SPP is required to submit its budget to the Commission. The Commission already has approved SPP's activities and has ordered that SPP's budgets be filed with the Commission.⁶

Schedule for Preparation and Approval of SPP Inc.'s Overall Annual Budget

SPP's overall annual budget is prepared on a budget cycle to be approved by its independent Board of Directors annually at its October meeting. Because of this timing difference with the NERC budget process SPP is unable to provide an accurate 2017 SPP budget for non-statutory activities at this time. The process begins during the second quarter when the SPP staff develops preliminary non-statutory budgets. During the third quarter the Finance Committee of SPP initially reviews and evaluates the budget prepared by SPP staff. Once the budget is approved by the Finance Committee, it is presented to the Board of Directors for their review and approval at its quarterly meeting held in October. The SPP overall annual budget is then submitted to FERC for approval. Because the 2017 SPP budget is not yet available, SPP is providing its Commission-approved 2016 budget and its 2015 actual results on the following table:

⁶ See Sw. Power Pool, Inc., 109 FERC ¶ 61,010, at P 98 (2004) (requiring SPP to file its operating budget on an annual basis). See also Sw. Power Pool, Inc., 109 FERC ¶ 61,009, at PP 3-5 (2004), order on reh'g, 110 FERC ¶ 61,137 (2005) (describing history of SPP RTO application, including approval and revision of SPP Bylaws); see also, generally, Sw. Power Pool, Inc., 108 FERC ¶ 61,003 (2004), order on reh'g, 110 FERC ¶ 61,138 (2005); Sw. Power Pool, Inc., 106 FERC ¶ 61,110 (2004).

Southwest Power Pool
Income Statement



(in \$000)	<u>2016 Budget</u>	<u>2015 Actual</u>
Income		
Tariff Administrative Service	150,660	143,826
Fees & Assessments	27,520	27,891
Contract Services Revenue	498	975
Miscellaneous Income	3,400	6,040
Total Income	<u>182,079</u>	<u>178,733</u>
Expense		
Salary & Benefits	85,153	84,043
Employee Travel	2,449	1,903
Administrative	5,198	4,928
Assessments & Fees	17,000	13,939
Meetings	983	825
Communications	4,091	3,758
Leases	-	123
Maintenance	16,847	13,553
Services	14,803	12,329
Regional State Committee	263	200
Depreciation & Amortization	59,736	59,285
Other Expense (Income)	10,569	26,317
Total Expense	<u>217,092</u>	<u>221,203</u>
Net Income (Loss)	<u><u>(\$35,013)</u></u>	<u><u>(\$42,470)</u></u>
Debt Repayment	\$24,194	\$24,887
Billing Determinant (MWh)	407,200	373,649
Net Revenue Requirement	\$150,495	\$142,587
Calculated Admin Fee / MWh	\$ 0.370	\$ 0.382
Recommended Admin Fee / MWh	\$ 0.370	\$ 0.390
Capital Expense	\$22,279	\$19,143
Headcount	599	596

Section D – Additional Consolidated Financial
Statements
2017 Business Plan and Budget



Section D — Consolidated Statement of Activities by Program, Statutory and Non-Statutory

Section D 2017 Consolidated Statement of Activities by Program, Statutory and Non-Statutory

Statement of Activities and Capital Expenditures by Program 2017 Budget	Functions in Delegation Agreement															Non-Statutory Functions
	Total	Statutory Total	Non-Statutory Total	Statutory Total	Reliability Standards (Section 306)	Compliance and Organization Registration and Certification (Section 400 & 500)	Reliability Assessment and Performance Analysis (Section 809)	Training and Education (Section 900)	Situation Awareness and Infrastructure Security (Section 1000)	Committee and Member Forums	General and Administrative	Legal and Regulatory	Information Technology	Human Resources	Accounting and Finance	
Funding																
SPP RE Funding																
SPP RE Assessments	8,965,053	8,965,053	-	8,965,053	74,769	7,846,675	2,453,341	79,211	41,765	-	(1,530,708)	-	-	-	-	-
Penalty Sanctions	369,750	369,750	-	369,750	1,608	279,724	86,811	-	1,608	-	-	-	-	-	-	-
Total SPP RE Funding	9,334,803	9,334,803	-	9,334,803	76,377	8,126,399	2,540,152	79,211	43,372	-	(1,530,708)	-	-	-	-	-
Non-Statutory Funding																
Federal Grants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Funding	9,334,803	9,334,803	-	9,334,803	76,377	8,126,399	2,540,152	79,211	43,372	-	(1,530,708)	-	-	-	-	-
Expenses																
Personnel Expenses																
Salaries	4,385,605	4,385,605	-	4,385,605	18,969	2,665,150	895,372	-	18,969	-	787,145	-	-	-	-	-
Payroll Taxes	335,499	335,499	-	335,499	1,451	203,884	68,496	-	1,451	-	60,217	-	-	-	-	-
Benefits	358,263	358,263	-	358,263	1,107	234,563	62,778	-	1,107	-	58,708	-	-	-	-	-
Retirement Costs	175,424	175,424	-	175,424	759	106,606	35,815	-	759	-	31,486	-	-	-	-	-
Total Personnel Expenses	5,254,791	5,254,791	-	5,254,791	22,286	3,210,203	1,062,461	-	22,286	-	937,555	-	-	-	-	-
Meeting Expenses																
Meetings	120,000	120,000	-	120,000	-	35,000	-	60,000	-	-	25,000	-	-	-	-	-
Travel	537,000	537,000	-	537,000	25,000	282,000	110,000	-	-	-	120,000	-	-	-	-	-
Conference Calls	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Meeting Expenses	657,000	657,000	-	657,000	25,000	317,000	110,000	60,000	-	-	145,000	-	-	-	-	-
Operating Expenses																
Consultants & Contracts	1,020,710	1,020,710	-	1,020,710	-	778,610	181,000	-	-	-	61,100	-	-	-	-	-
Office Rent	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Office Costs	10,000	10,000	-	10,000	-	-	-	-	-	-	10,000	-	-	-	-	-
Professional Services	212,100	212,100	-	212,100	-	11,000	-	-	-	-	201,100	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expenses	1,242,810	1,242,810	-	1,242,810	-	789,610	181,000	-	-	-	272,200	-	-	-	-	-
Total Direct Expenses	7,154,601	7,154,601	-	7,154,601	47,286	4,316,813	1,353,461	60,000	22,286	-	1,354,755	-	-	-	-	-
SPP Inc. Indirect Expenses	3,710,910	3,710,910	-	3,710,910	13,951	2,427,437	753,343	-	13,951	-	502,228	-	-	-	-	-
SPP RE Indirect Expenses	(0)	(0)	-	(0)	15,140	1,382,149	433,348	19,211	7,135	-	(1,856,983)	-	-	-	-	-
Total Indirect Expenses	3,710,910	3,710,910	-	3,710,910	29,091	3,809,586	1,186,691	19,211	21,086	-	(1,354,755)	-	-	-	-	-
Other Non-Operating Expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Expenses	10,865,511	10,865,511	-	10,865,511	76,377	8,126,399	2,540,152	79,211	43,372	-	-	-	-	-	-	-
Change in Assets	(1,530,708)	(1,530,708)	-	(1,530,708)	-	-	-	-	-	-	(1,530,708)	-	-	-	-	-
Fixed Assets																
Depreciation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Computer & Software CapEx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Furniture & Fixtures CapEx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Equipment CapEx	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Leasehold Improvements	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
(Inc)Dec in Fixed Assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Allocation of Fixed Assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Change in Fixed Assets	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL CHANGE IN NET ASSETS	(1,530,708)	(1,530,708)	-	(1,530,708)	-	-	-	-	-	-	(1,530,708)	-	-	-	-	-
FTEs	33.25	33.3	-	33.25	0.13	21.75	6.75	-	0.13	-	4.50	-	-	-	-	-
Percentage of FTEs				100%	0.4%	65.4%	20.3%	0.0%	0.4%	0.0%	13.5%	0.0%	0.0%	0.0%	0.0%	0.0%
Percentage of Functional Program FTEs				100%	0.4%	75.7%	23.5%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Percentage of Functional Program Direct Expenses				100%	0.8%	74.4%	23.3%	1.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Indirect Cost Allocation																
SPP Inc. Indirect Costs	3,710,910	3,710,910	-	3,710,910	13,951	2,427,437	753,343	-	13,951	-	502,228	-	-	-	-	-
SPP RE Indirect Costs	1,856,983	1,856,983	-	1,856,983	15,140	1,382,149	433,348	19,211	7,135	-	-	-	-	-	-	-
Total Indirect Costs	5,567,893	5,567,893	-	5,567,893	29,091	3,809,586	1,186,691	19,211	21,086	-	502,228	-	-	-	-	-
Fixed Assets Allocation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Penalty Sactions Allocation	369,750	369,750	-	369,750	1,608	279,724	86,811	-	1,608	-	-	-	-	-	-	-

Section E – Calculation of SPP, Inc. Indirect Expense 2017 Business Plan and Budget



Section E

CALCULATION OF THE SPP INC. INDIRECT EXPENSE CHARGE¹

<u>Expense Category²</u>		<u>Overhead Costs Allocation (\$000)</u>
Facilities	\$	446
Information Technology		595
Human Resources/Benefits/Payroll		310
Corporate Services		1,169
2016 Total Costs		<u>2,520</u>
Escalated by 3%	\$	2,596

Shared Staff Overhead Allocation

2016 Overhead Allocation Escalated by 3%		850 A
Ending 2015 FTEs		4 B
2017 Budgeted FTEs		<u>5.25 C</u>
2016 Total Cost		1,115 D

$$D = (A / B) \times C$$

Budgeted SPP Inc. Indirect Costs	\$	3,710,910
---	-----------	------------------

¹Due to the timing of the budget process/schedule, the fixed estimated indirect expense charge for 2017 is based on 2015 costs, escalated by 3%. Any variance between the estimated overhead expenses and the actual 2017 overhead expenses will be included in the annual 2017 Business Plan and Budget true-up filing.

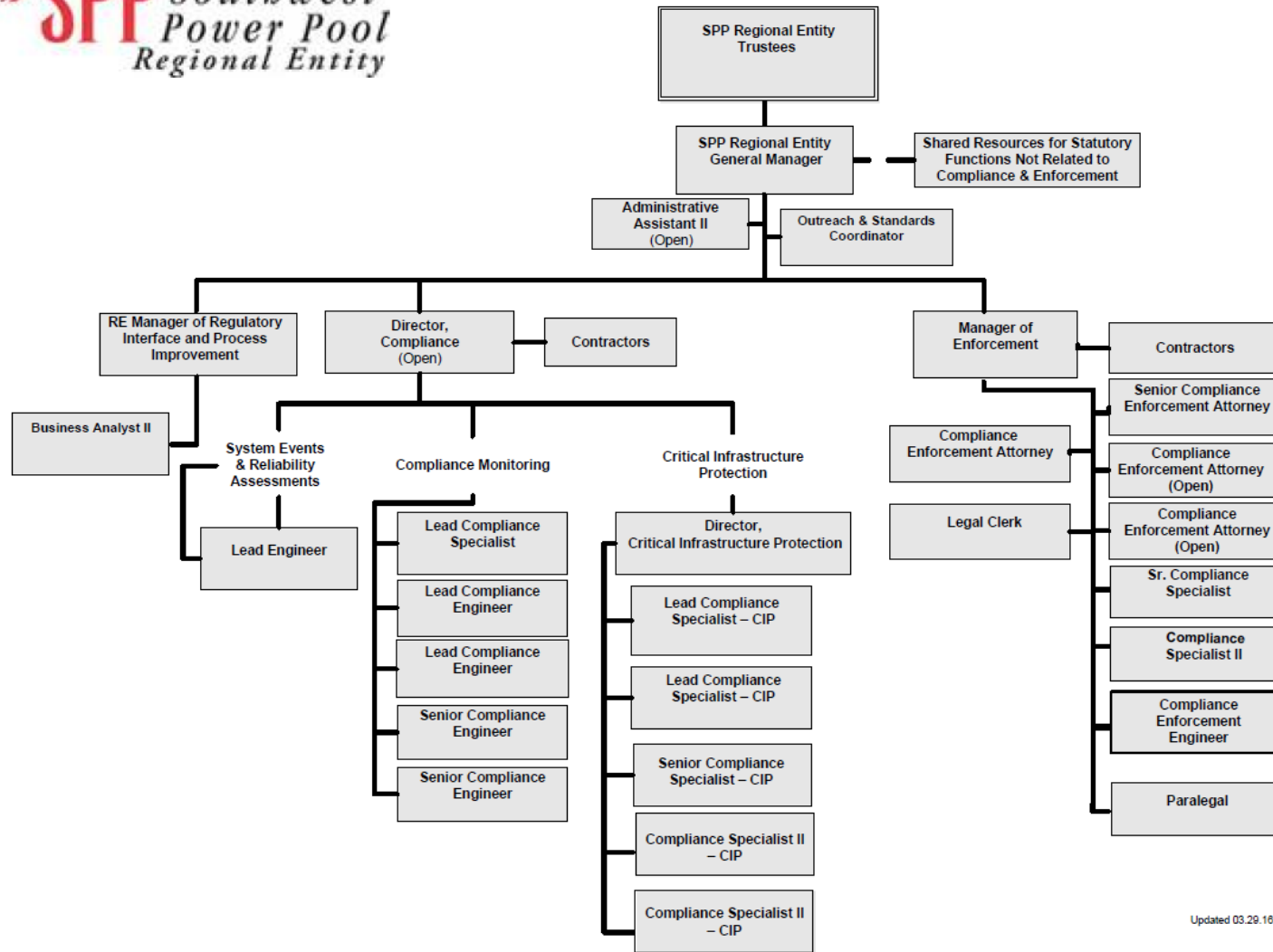
² SPP RE cost allocation is based on an appropriate measure per expense category (square footage, number of devices, headcount, etc.)

Section F– Organizational Chart 2017 Business Plan and Budget





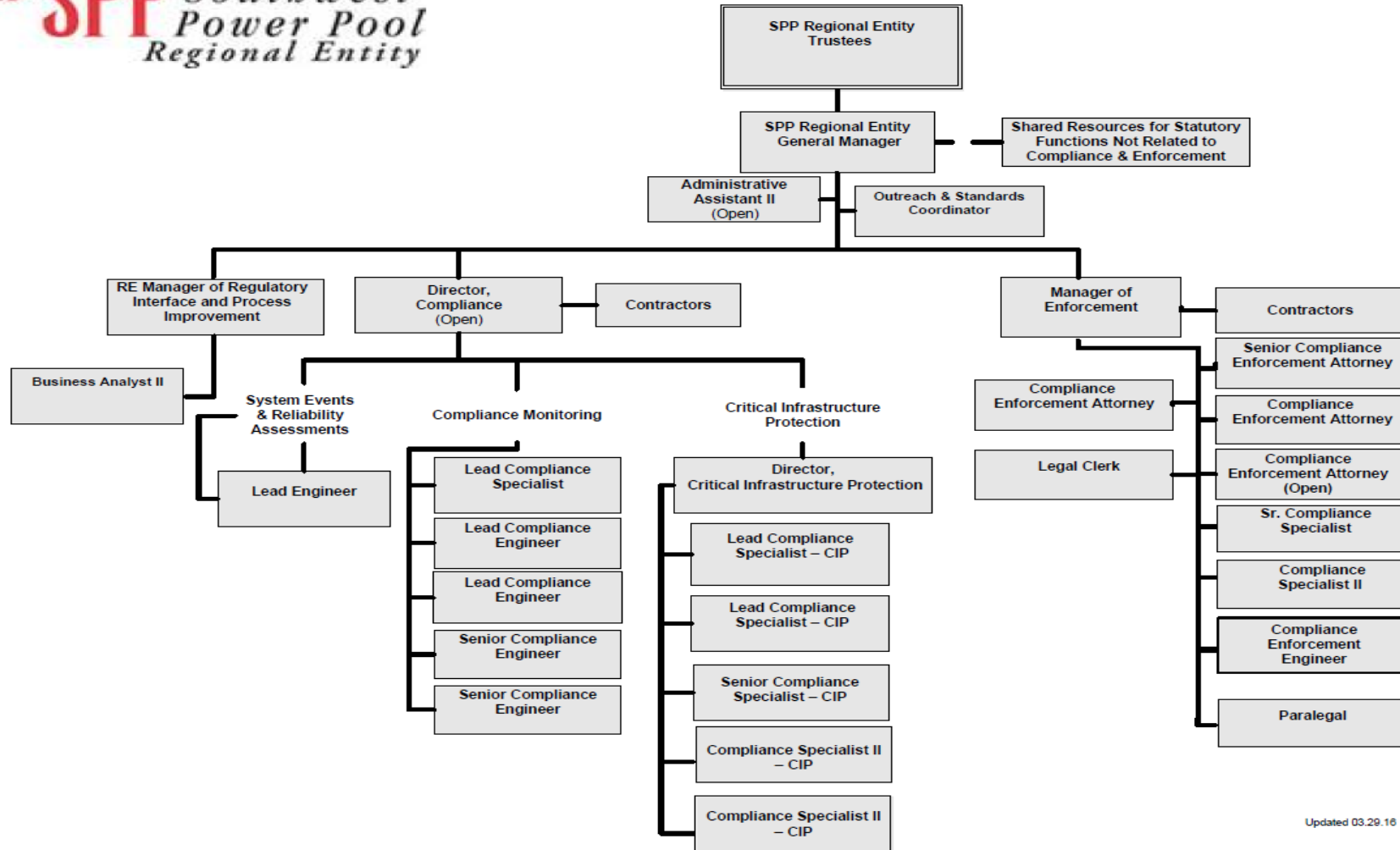
Organizational Chart - 2016



Updated 03.29.16



Organizational Chart - 2017 Proposed



Updated 03.29.16



SPP RE 1st Quarter Financial Report

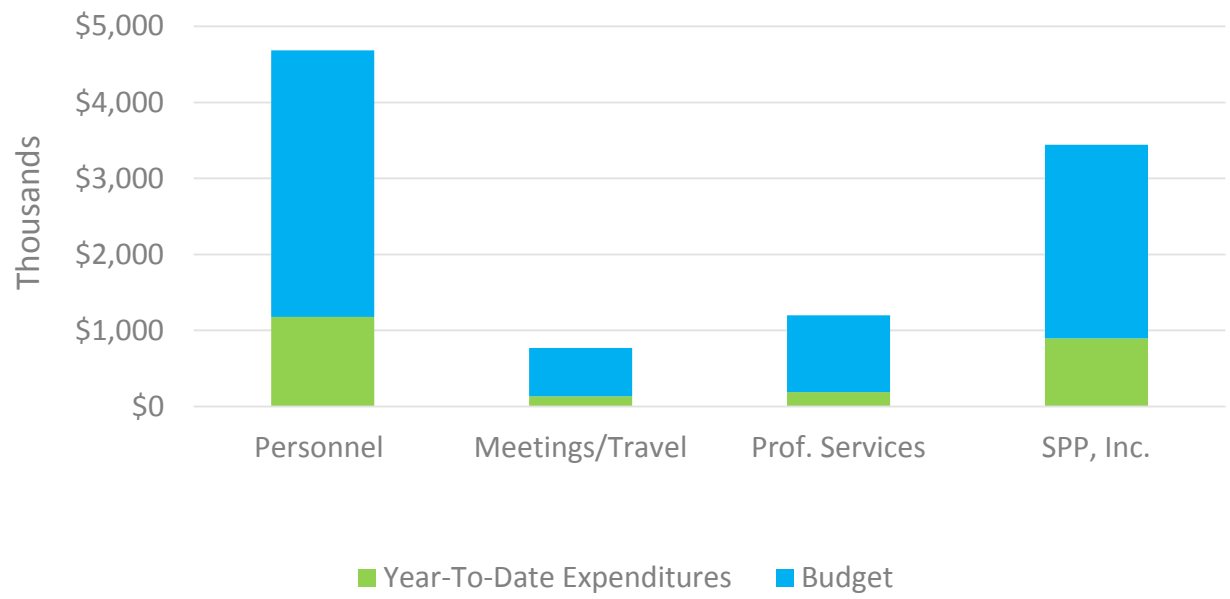
April 25, 2016

Debbie Currie

**RE Manager of Regulatory Interface
and Process Improvement**

2016 1st Quarter Actuals vs. Budget

- Total expenses ~\$127k under budget
 - Personnel Expenses ~\$6k over budget
 - Meeting/Travel Expenses ~\$57k under budget
 - Professional Services ~\$111k under budget
 - SPP, Inc. Overhead Charge ~\$36k over budget



Overview

- **SPP currently has four open staff positions**
 - **Compliance Director – open at end of 2015, not actively seeking candidates**
 - **Enforcement Attorney – open at end of 2015, not actively seeking candidates**
 - **Administrative Assistant – open via attrition in 1st Quarter; currently seeking replacement**
 - **Enforcement Attorney – open via attrition in 1st Quarter; currently seeking replacement**
- **Open positions drive a large percentage of actual to budget variance; impacts personnel and travel expenses**

Overview, cont.

- **Contractor/Consultant/Professional Service costs below budget**
 - **CIP V5 Implementation Delay**
 - 4 Audits Scheduled for 2016 moved to 2017
 - **Increasing staff experience**
 - Pre-audit work, including Inherent Risk Assessment activities, leading to reduced time onsite or reduction in audit team size

Overview, cont.

- **Engineering Data Validation Tool**
 - **Development halted in 1st Quarter; need for tool still exists**
 - **Contemplating a vendor change with work to begin 3rd Quarter 2016; project completion expected in 2017**

Year-End Projection

- **At the end of Q1, SPP RE projects to be under budget by \$400k**
 - **2016 Budget consistent with 2015 Actuals**
 - **Change in SPP, Inc. Charge will reduce previous year variances**
 - **Meeting/travel expenses ~\$150k under budget**
 - **Professional services ~\$250k under budget**

SOUTHWEST POWER POOL REGIONAL ENTITY
STATEMENT OF ACTIVITIES
2016 MARCH YTD DRAFT (UNAUDITED)

<i>(In Whole Dollars)</i>	2016 MAR YTD ACTUAL	2016 MAR YTD BUDGET	VARIANCE	2016 FULL YEAR PROJECTION	2016 FULL YEAR BUDGET	VARIANCE
Funding						
ERO Funding	2,156,688	2,156,688	-	8,626,751	8,626,751	-
Penalty Sanctions	48,250	48,250	-	193,000	193,000	-
Total SPP RE Funding	2,204,938	2,204,938	-	8,819,751	8,819,751	-
Testing Fees	-	-	-	-	-	-
Workshops	-	-	-	-	-	-
Interest	1,063	-	1,063	1,063	-	1,063
Miscellaneous	-	-	-	-	-	-
Total Funding (A)	2,206,000	2,204,938	1,063	8,820,814	8,819,751	1,063
Expenses						
Personnel Expenses						
Salaries	937,617	974,123	(36,506)	3,896,492	3,896,492	-
Payroll Taxes	57,786	74,521	(16,734)	298,082	298,082	-
Benefits	132,287	83,391	48,896	333,564	333,564	-
Retirement Costs	49,470	38,965	10,505	155,860	155,860	-
Total Personnel Expenses	1,177,161	1,171,000	6,161	4,683,997	4,683,997	-
Meeting Expenses						
Meetings	21,280	22,500	(1,220)	86,801	90,000	(3,199)
Travel	114,044	170,050	(56,006)	533,399	680,200	(146,801)
Conference Calls	-	-	-	-	-	-
Total Meeting Expenses	135,324	192,550	(57,226)	620,200	770,200	(150,000)
Operating Expenses						
Contracts & Consultants	57,501	241,261	(183,759)	551,259	965,042	(413,783)
Office Rent	-	-	-	-	-	-
Office Costs	3,224	2,000	1,224	10,757	8,000	2,757
Administrative Costs	-	-	-	-	-	-
Professional Services	128,485	38,363	90,122	356,384	153,450	202,934
Computer Purchase & Maint.	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-
Miscellaneous/ Contingency	-	18,611	(18,611)	32,537	74,445	(41,908)
Total Operating Expenses	189,210	300,234	(111,024)	950,937	1,200,937	(250,000)
Total Direct Expenses	1,501,695	1,663,784	(162,089)	6,255,134	6,655,134	(400,000)
SPP Inc. Indirect Expenses	896,602	860,171.25	36,431	3,440,685	3,440,685	-
SPP RE Indirect Expenses	-	-	-	-	-	-
Total Indirect Costs	896,602	860,171	36,431	3,440,685	3,440,685	-
Total Expenses (B)	2,398,297	2,523,955	(125,658)	9,695,819	10,095,819	(400,000)
Net Change in Assets (A-B)	(192,296)	(319,017)	126,721	(875,005)	(1,276,068)	401,063
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))	2,398,297	2,523,955	(125,658)	9,695,819	10,095,819	(400,000)
Change in Working Capital (Total Funding less Total Budget) (A-B-C)	(192,296)	(319,017)	126,721	(875,005)	(1,276,068)	401,063
FTEs*	30.2	32.5	(2)	32.5	32.5	-
Beginning WC - 01/01/2016	3,324,959	1,276,068	2,048,891	3,324,959	1,276,068	2,048,891
Change to WC - 2016 YTD	(192,296)	(319,017)	126,721	(875,005)	(1,276,068)	401,063
Working Capital as of 3/31/16	3,132,662	957,051	2,175,611	2,449,953	-	2,449,953

*Headcount (RE direct staff count as of 3/31/2016 and shared staff YTD billed hours/1880).

Essential Reliability Services Working Group (ERSWG)

- The PC approved the scope of the ERSWG and its support group, the Distributed Energy Resources (DER) Task Force (DERTF). The two groups plan to develop reports identifying differences between federal and state initiatives and policies on distributed generation and examining potential reliability implications.
- The DERTF plans to clarify the definitions regarding Behind-the-Meter Generation, Distributed Generation, and other terms to provide recommendations for consistent modeling and impact of DERs in assessments.
- The DERTF is also developing a Reliability Guideline with recommendations for Distribution Providers on DER-type interconnection considerations.

IEEE Standard 1547 Coordination Update

- The NERC System Analysis and Modeling Subcommittee continues to monitor the revision of IEEE Standard 1547 regarding Interconnecting Distributed Resources with Electric Power Systems.
- The IEEE standard is an equipment-based standard which establishes criteria and requirements for interconnection of distributed resources with electric power systems. The standard addresses
 - performance,
 - operations,
 - testing,
 - safety, and
 - Maintenance.
- NERC is primarily focused on performance, particularly during abnormal operating conditions. Three distinct categories have been defined based on stability and reliability needs and Reliability Standard PRC-024-2 coordination.

Frequency Response

- FERC has issued a Notice of Inquiry seeking input on whether and what action is needed, including whether to:
 - Amend the pro forma Large Generator and Small Generator interconnection agreements to require that each generating unit/facility connected to the BPS shall operate with the governor in service and responsive to frequency when the unit is online and released for dispatch (unless agreed upon with the BA)
 - the performance of existing resources and whether to impose primary frequency response requirements on existing resources (in Reliability Standards, tariffs, or other formats); and
 - requirements related to procuring and compensating primary frequency
- NERC views
 - Primary Frequency response (as part of overall frequency support) is an Essential Reliability Service (ERS).
 - Essential for interconnection stability, prevention of equipment damage, coordination of droop response, and system restoration (cranking path)
- The ERSTF final report recommended that ALL resources have the capability to provide frequency response.

- FERC has enabled the sale of primary frequency response service at market-based rates
- Provisions for market-based sale of primary frequency response provides a mechanism for entities to be compensated when reducing generation output for frequency response reasons; however, there are no requirements that ensure that resources have the capability to provide frequency response.
- With a rapidly changing resource mix, ensuring adequate frequency support is a risk to BPS reliability.

- Potential areas of focus for the ERO
 - BAL Standard
 - Asynchronous Resources
 - Planning

Modeling Issues Notification Process Review

- NERC has established a process for informing industry of observed modeling inconsistencies and enhancements.
- The Modeling Working Group (MWG) will first conduct modeling assessments which will then be reviewed by the NERC System Analysis and Modeling Subcommittee. The process is expected to share best practices between industry and the ERO Enterprise on modeling power system equipment.
- Notifications will be posted on the [NERC web site](#) and distributed to appropriate registered entity contacts and vendors.
- The MWG also plans to survey industry on the use of PSSE v34 and PSLF v19 for best practices.

NERC Clean Power Plan Phase II Study

- NERC staff provided an update on their assessment of the Clean Power Plan (CPP), which will be presented at the next NERC BOT Meeting.
- The assessment uses a low gas-price scenario as a base case for various intrastate and interstate trading scenarios and varying levels of renewable penetration and accelerated nuclear plant retirements.
- The ERO Enterprise is committed to educating States on how policy changes can impact ERS and plans to incorporate each state's plan in future long-term reliability assessments.

Unit Auxiliary Transformer (UAT) Overcurrent Relay Load ability Report

- The PC approved a report written by the NERC System Protection and Control Subcommittee (SPCS) that investigates a potential gap in low-side phase-time overcurrent protective relays that are not applicable to Reliability Standard PRC-025-1.
- The report concludes that such protection, when set to recommended settings, did not operate during observed system events and poses no reliability risk to the BES. Hence, the reference to these specific relays could be omitted from NERC Reliability Standard PRC-025-1 compliance.

SPP Regional Entity Trustee Meeting

Santa Fe, NM

April 25, 2016

Essential Reliability Services Working Group (ERSWG)

- The PC approved the scope of the ERSWG and its support group, the Distributed Energy Resources (DER) Task Force (DERTF). The two groups plan to develop reports identifying differences between federal and state initiatives and policies on distributed generation and examining potential reliability implications.
- The DERTF plans to clarify the definitions regarding Behind-the-Meter Generation, Distributed Generation, and other terms to provide recommendations for consistent modeling and impact of DERs in assessments.
 - The DERTF is also developing a Reliability Guideline with recommendations for Distribution Providers on DER-type interconnection considerations.
- ◆ December 2015 – NERC Board Approved
 - ERS Framework Report
 - ERS Abstract Document
 - ERS Videos

Essential Reliability Services Working Group (ERSWG)

Ref Number	Title	ERS Recommendation	Ongoing Responsibility
1	Synch Inertia at Interconnection Level1	Measure	RS & FWG
2	Initial Frequency Deviation	Measure	RS & FWG
3	Synch Inertia at BA Level	Measure	RS & FWG
4	Freq Response at Interconnection Level	Measure	RS & FWG
5	Real Time Inertial Model	Industry Practice	BA
6	Net Demand Ramping Variability	Measure	RAS
7	Reactive Capability on the System	Measure	PAS & SAMS
9	Overall System Reactive Performance	Industry Practice	EAS
10	System Strength	Industry Practice	PC

Essential Reliability Services Working Group (ERSWG)

NERC Board Endorsed Future Work

- ERSTF transformed to ERSWG
- Define and develop 'Sufficiency Guidelines' for each measure
- Focus on Distributed Energy Resources, hence DERTF formed as an additional subgroup
- Monitor and Track ERS Measures assigned to PC and OC Subcommittees, coordinate as needed

2016 Deliverables:

- Whitepaper on methodology for ERS Measures Sufficiency Guidelines
- Final Report on DERTF

2017 Deliverable:

- Final Report on ERS Measure Sufficiency Guidelines

IEEE 1547: Standard for Interconnecting Distributed Resources with Electric Power Systems

- ◆ The NERC System Analysis and Modeling Subcommittee continues to monitor the revision of IEEE Standard 1547 regarding Interconnecting Distributed Resources with Electric Power Systems.
- ◆ The IEEE standard is an equipment-based standard which establishes criteria and requirements for interconnection of distributed resources with electric power systems. The standard addresses
 - performance,
 - operations,
 - testing,
 - safety, and
 - Maintenance.
- ◆ NERC is primarily focused on performance, particularly during abnormal operating conditions. Three distinct categories have been defined based on stability and reliability needs and Reliability Standard PRC-024-2 coordination.

IEEE 1547: Standard for Interconnecting Distributed Resources with Electric Power Systems

- ◆ Scope: Establishes criteria and requirements for interconnection of distributed resources (DR) with electric power systems (EPS)
- ◆ Purpose: Provides uniform standard for interconnection of DR with EPS. Provides requirements relevant to the performance, operation, testing, safety considerations, and maintenance of the interconnection.
- ◆ NERC believes that Frequency Response and Voltage Support are Essential Reliability Services (ERS) to the Bulk Power System (BPS)
- ◆ As DR penetration increases and DR becomes a key component to BPS performance, it is critical that DR operation and control strategies align with the needs of the BPS for long-term reliability.
- ◆ NERC believes there is an opportunity to get out in front of the problem before it becomes a reliability risk.

IEEE 1547: Standard for Interconnecting Distributed Resources with Electric Power Systems

- ◆ The standard is an equipment standard; however, ensuring *the capability is available and in-service is a reliability issue of the BPS*
- ◆ NERC is engaging primarily in revisions to Clause 4.2: “Response to Area EPS abnormal conditions”
 - Voltage Ride-Through
 - Dynamic Voltage Support
 - Frequency Ride-Through
 - Frequency Response Capabilities
 - » Frequency-Droop Characteristic
 - » Deadband Settings
- ◆ Working with IEEE 1547 team to better understand frequency control fundamentals and need for tight or no deadband
- ◆ Confusion across industry on this topic: distribution, vendor, and BPS industry level.

Frequency Response

Upcoming Steps

- ◆ Monitoring of ERS Measures
- ◆ Long-Term Reliability Assessment
- ◆ State of Reliability Report
- ◆ NERC-ERAG Scenario Assessment on Frequency Response in Eastern Interconnection
- ◆ ERSWG Development of Sufficiency Guidelines
- ◆ FERC Notice of Inquiry
- ◆ The FERC NOI seeks input on whether and what action is needed, including whether to:
 - Amend the pro forma Large Generator and Small Generator interconnection agreements to require that each generating unit/facility connected to the BPS shall operate with the governor in service and responsive to frequency when the unit is online and released for dispatch (unless agreed upon with the BA)
 - the performance of existing resources and whether to impose primary frequency response requirements on existing resources (in Reliability Standards, tariffs, or other formats); and
 - requirements related to procuring and compensating primary frequency response.

Frequency Response - Developing the ERO Message

- ◆ Primary Frequency response (as part of overall frequency support) is an Essential Reliability Service (ERS).
- ◆ Essential for interconnection stability, prevention of equipment damage, coordination of droop response, and system restoration (cranking path).
- ◆ FERC has enabled the sale of primary frequency response service at market-based rates
- ◆ Provisions for market-based sale of primary frequency response provides a mechanism for entities to be compensated when reducing generation output for frequency response reasons; however, there are no requirements that ensure that resources have the capability to provide frequency response.
- ◆ With a rapidly changing resource mix, ensuring adequate frequency support is a risk to BPS reliability.
 - The ERSTF final report recommended that ALL resources have the capability to provide frequency response.
- ◆ Potential areas of focus for the ERO
 - BAL Standard
 - Asynchronous Resources
 - Planning

Modeling Notification – Proposed Process

Use of appropriate models that best represent machines and components within the planning arena

- NERC wide or interconnection specific
- Input from software vendors, OEMs and planners
- Analysis and technical background

Approval/Analysis and Posting Process

- Industry/Modeling SMEs
 - » Request for analysis of modeling gaps
- SAMS/MWG
 - » Review industry practices, available analysis
 - » Leverage on available studies to identify benefits
 - » Develop notification and background document
- Planning Committee
 - » Approval and posting on NERC Website

Modeling Notification – Proposed Process

Posting of Modeling Notifications Posting Process upon PC Approval

- Posting related documents on NERC-MWG webpage
- Modify the standardized component model list – if applicable
- Send out NERC Announcement to Planning Coordinators, Resource Planners, Transmission Owners, Transmission Planners, Transmission Service Provider, Balancing Authority, Generator Owner, Load Serving Entity and other applicable parties
- Feedback loop to obtain comments from the industry
- Assign a review timeframe for periodic review of these models



CIP Update

Kevin B. Perry

Director, Critical Infrastructure Protection

kperry.re@spp.org

501.614.3251

Topics

- Order 822 Response
- Outreach
- Enforcement Dates
- Technical Feasibility Exceptions
- Self-Certifications
- Ukraine Attack

Order 822 Response

- CIP Revisions being managed under NERC Project 2016-02 (Modifications to CIP Standards)
- Standards Drafting Team
 - Nominations were due March 23
- Standards Authorization Request posted for comment
 - Comments were due April 21
 - Incorporates directives from FERC Order 822 and issues discovered during the CIP V5 Transition Study
 - Expected to also address any pending Requests for Interpretation

Outreach

- Summary of 2015-2016 activities to date
 - Three SPP RE general compliance workshops
 - One SPP RE CIP workshop
 - Six on-site general CIP V5 transition workshops with multiple Registered Entities attending
 - Eleven on-site CIP V5/V6 readiness assessments
 - Supported six NERC Small Group Advisory workshops with multiple Registered Entities attending
 - One webinar on Low Impact requirements
- Planned for 2016-2017
 - One readiness assessment for a Registered Entity with High Impact BES Cyber Systems
 - On-site general CIP V6 (Low Impact) workshops with multiple Registered Entities attending
 - Off-site WebEx/conference call CIP V6 outreach for single Registered Entities
 - Focused webinars (will solicit needs from Registered Entities)
 - Continued ad-hoc email and conference call support for questions

Enforcement Dates

- Spreadsheet with enforcement date for each Requirement/Part posted to the NERC website:
<http://www.nerc.com/pa/CI/Documents/Copy%20of%200CIP%20Version%205%20Standards%20Implementation%20Dates%20-%20Final%20040416.xlsx>
- Enforcement dates derived from the CIP V5 and CIP V6 Implementation Plans
- Key dates:
 - Initial compliance for most High and Medium Impact requirements moved back by FERC order to July 1, 2016
 - Certain requirements have delayed enforcement dates
 - Initial compliance for Low Impact requirements
 - April 1, 2017: CIP-003-6, R2; Attachment 1 Sections 1 and 4
 - September 1, 2018: CIP-003-6, R2; Attachment 1 Sections 2 and 3

Technical Feasibility Exceptions (TFE)

- Existing TFEs under CIP V3 with an equivalent CIP V6 requirement will be automatically converted to the CIP V6 requirement on July 1, 2016.
 - CIP-005-5, Part 2.3
 - CIP-007-6, Parts 1.1, 4.3, and 5.6
 - Conversion will be treated as a Material Change
 - SPP RE Staff will need to approve all converted TFEs
- Existing TFEs under CIP V3 with no equivalent CIP V6 requirement will be administratively terminated July 1.
 - Notices will not be automatically generated by webCDMS
- Registered Entities should already be requesting TFEs for new CIP V6 requirements that have no CIP V3 equivalent
 - CIP-005-5, Parts 1.4, 2.1, and 2.2
 - CIP-006-6, Part 1.3
 - CIP-007-6, Parts 5.1 and 5.7
 - CIP-010-2, Parts 1.5 and 3.2

Self-Certifications

- CIP-002-5.1 Self-Certification submittal date extended to July 15, 2016.
 - SPP RE-modified Excel workbook to be used
 - Data required for each asset; no roll-up or summarization
 - SPP RE will summarize the submitted data for submission to NERC
 - SPP RE will provide copy of NERC submittal to Registered Entity
- CIP-014-2 Self-Certification submittal due May 2, 2016.
 - SPP RE will follow-up with Registered Entity as necessary if asset(s) identified as requiring protection

Ukraine Attack

STAR TRIBUNE CagleCartoons.com
SACK

TO: CUSTOMER SUPPORT
SUBJECT: MY SECURITY

IS MY PASSWORD
SAFE FROM
RUSSIAN HACKERS?

TO: CUSTOMER
SUBJECT: YOUR SECURITY

DA.



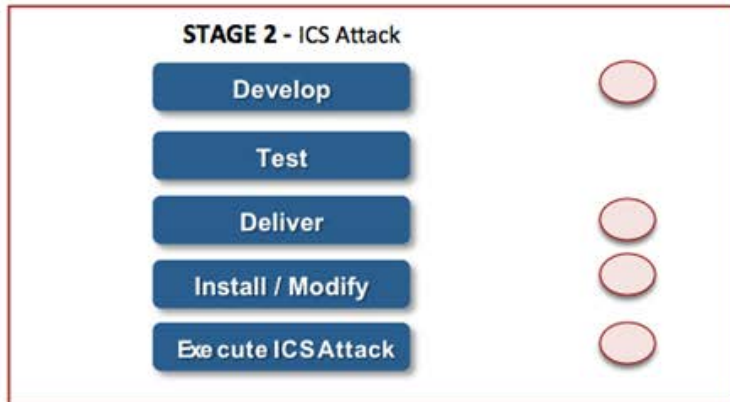
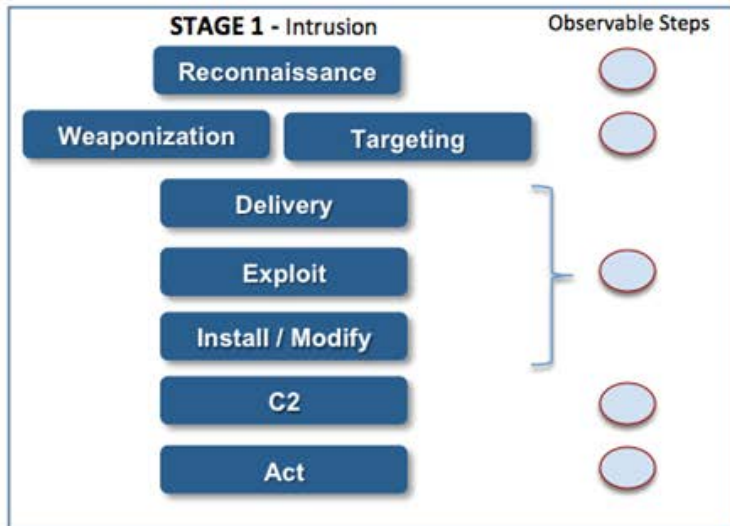
Ukraine Attack

Anatomy of the Attack

- The technical components of the attack included:
 - Spear phishing to gain access to the business networks
 - Identification of BlackEnergy 3 at impacted oblenergog (distribution companies)
 - Theft of credentials from the business networks
 - The use of virtual private networks (VPNs) to enter the ICS network
 - The use of existing remote access tools or issuing commands directly from a remote station similar to an operator HMI
 - Serial-to-ethernet communications devices impacted at firmware level
 - The use of a modified KillDisk to erase master boot record of impacted organization systems as well as the targeted deletion of some logs
 - Use of Uninterruptible Power Supply systems to impact connected load with a scheduled service outage
 - Telephone denial-of-service attack on the call center

Ukraine Attack

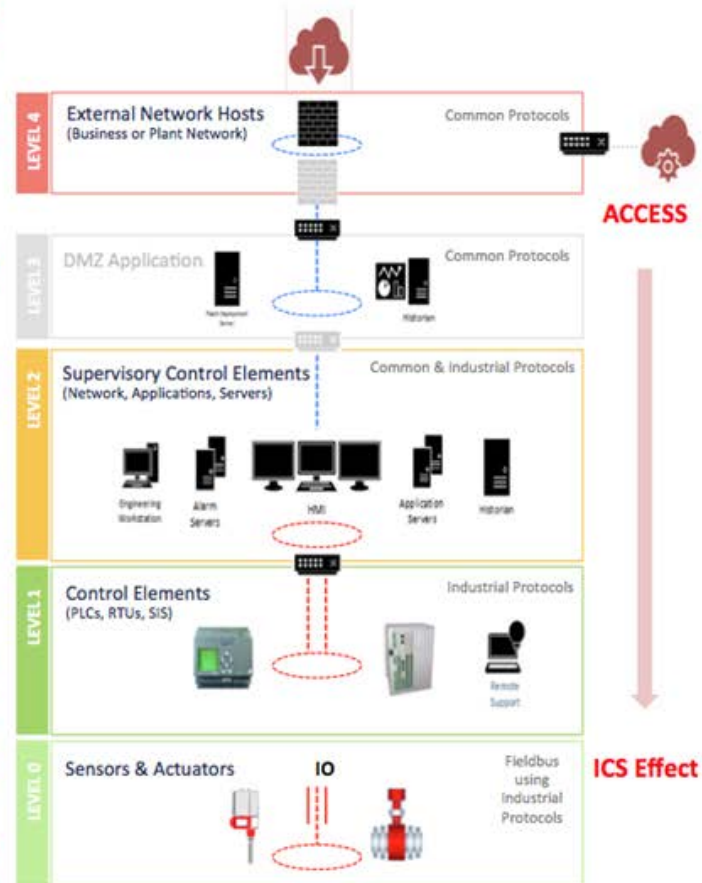
The ICS Kill Chain



APT



Power Outages



Ukraine Attack

Stage 1 - Reconnaissance

Attack Action

- No observation of reconnaissance activities by the targeted energy companies
- Reconnaissance is assumed to have occurred
 - Three Oblenergos targeted
 - Targeting and final attack plans were highly coordinated
 - Targets utilized high levels of automation in distribution systems, enabling the attack

Response

- CIP-011-2, R1: Information Protection Program
- Look beyond CIP Environment
 - Public postings of corporate information including organizational information, job postings, procurement solicitations and announcements

Ukraine Attack

Stage 1 – Weaponization/Targeting

Attack Action

- Direct access to Internet-connected devices was not necessary
- Microsoft Office documents (Excel and Word) were embedded with Black Energy 3 malware

Response

- Cannot interdict the attackers at the point they are preparing the malware of choice
- Cannot assume next attack will use the same malware
- Black Energy 3 gave the attackers a foothold in the targeted companies' networks

Ukraine Attack

Stage 1- Deliver/Exploit/Install

Attack Action

- Malicious Office documents delivered via email in a Spear Phishing campaign
 - IT network and admin personnel targeted
 - Required recipients to open the infected attachments and then enable macros
 - Enabling macros allowed Black Energy 3 to be installed on the victim's PC

Response

- Disable Macros
- Application White Listing

Ukraine Attack

Stage 1 – C2 and Act

Attack Action

- The Black Energy 3 malware connected to command and control systems, allowing attackers to:
 - Perform information gathering and enable access using available Cyber Asset functionality
 - Move deeper into organization's networks
 - Blend into systems as authorized users
 - Formulate a plan for Stage 2 of the attack
- For more than six months, the attackers were able to:
 - Harvest user credentials
 - Escalate privileges
 - Laterally move around the network
 - Discover systems and networks
 - Establish a persistent presence

Ukraine Attack

Stage 1 – C2 and Act

Response

- Works primarily in the corporate network environment and would need to expand beyond BES operational technology environments for early interdiction
- CIP-003-6, R1: Cyber security policies and procedures are foundational to any cyber security program
- CIP-004-6, R1: Security Awareness programs should emphasize recognizing social engineering activities
- CIP-004-6, R2: Cyber security training, including incident response and recovery
- CIP-007-6, R2: Security patching closes exploitable vulnerabilities
- CIP-007-6, R3: Anti-malware deters malware exploits
- CIP-007-6, R4: Security monitoring and alerting
- CIP-007-6, R5: User access controls, including least privileges required
- CIP-008-5, R1: Incident response plans, including response to suspected or actual social engineering attempts
- CIP-009-6, R1: Recovery plans for restoring compromised Cyber Assets

Ukraine Attack

Stage 2 – Develop and Test

Attack Action

- Typically performed in the attacker's networks, which limits visibility
- Attackers were able to:
 - Interact with the three distinct Distribution Management System environments
 - Develop malicious firmware for the serial-to-ethernet devices
 - Practice
- Response
 - Attacker presence must be detected in the network during this stage of activities

Ukraine Attack

Stage 2 - Deliver

Attack Action

- Available functionality of Cyber Assets used to enter the environment permitting direct interaction with the ICS components
 - VPN access used to get into the IT environment
 - Looked like authorized users
 - VPN tunnel was presumably encrypted, a normal feature of VPN access, masking attackers from observation
 - Existing remote administration tools used to conduct the attack

Response

- CIP-004-6, R1: Awareness training should include recognition of suspicious activity and procedures for reporting it
- CIP-004-6, R2: Detailed cyber security training, appropriate for the operations staff, should include procedures for incident recognition and reporting

Ukraine Attack

Stage 2 - Deliver

- Response (continued)
 - CIP-004-6, R4: Quarterly access review detects unauthorized accounts and annual review detects unauthorized permissions
 - CIP-005-5, R1: Tight ingress and egress firewall rules limit exploitable access paths to protected Cyber Assets
 - CIP-005-5, R2: Multi-factor authentication of VPN access and use of an Intermediate System can prevent unauthorized Interactive Remote Access
 - CIP-007-6, R1: Closing unnecessary ports reduces attack surface of Cyber Assets
 - CIP-007-6, R4: Access monitoring can detect abnormal user activity
 - CIP-007-6, R5: Strong user access controls, including least privileges and strong, regularly changed passwords, can reduce the risk of exploit
 - CIP-008-6, R1: Robust incident response plan essential to early detection and interdiction
 - CIP-010-2, R2: Monitoring for unexpected changes to baseline can detect malicious updates to Cyber Assets
 - CIP-011-2, R2: Protection of BES Cyber System information, including operator instructions, can limit attacker's ability to learn enough about a target system to craft a successful attack

Ukraine Attack

Stage 2 – Install/Modify

Attack Action

- Attackers completed the Install/Modify steps
 - Installed malicious software (customized KillDisk)
 - Possible preparation to disrupt Uninterruptible Power Supply
 - Possible positioning of malicious firmware for upload to serial-to-ethernet devices
 - Control of the operator workstations, locking out operators from consoles

Response

- CIP-004-6, R1: Awareness training should include recognition of suspicious activity and reporting procedures
- CIP-004-6, R2: Detailed cyber security training, appropriate for the operations staff, should include procedures for incident recognition and reporting

Ukraine Attack

Stage 2 – Execute ICS Attack

Attack Action

- Attackers used operator console functionality (HMI) to open breakers in at least 27 substations across the three distribution companies
- Malicious firmware was uploaded to the serial-to-ethernet devices, effectively “bricking” the devices and disabling remote operational control of the substations
- Uninterruptible Power Supply systems were taken offline, killing power to the operational systems
- KillDisk wiped certain workstations, servers, and an HMI card inside an RTU, rendering the affected Cyber Assets unusable, and deleted logs and system events on other systems
- Customer Support Center phone system flooded with bogus calls (denial of service attack)

Ukraine Attack

Stage 2 – Execute ICS Attack

Response

- CIP-008-5, R1: Incident response plan should address a variety of events of varying severity and duration, including multi-system cyber attacks
- CIP-008-5, R2: Incident response plan should be regularly tested to determine effectiveness, as well as to train responders
- CIP-009-6, R1: Following a successful compromise of a Cyber Asset, system recovery plans necessary to restore Cyber Asset to normal functionality
 - Recovery Plans should envision a variety of failure scenarios, up to and including catastrophic loss of the facility
 - Recovery plans should consider prioritization of recovery in the event of multiple failures
- CIP-009-6, R2: Recovery plans should be tested, to include full system restoration, to verify plan feasibility and to train staff responsible for restoration activities

Ukraine Attack

For More Information

- Thanks to the Electricity Information Sharing and Analysis Center (E-ISAC) and the SANS Institute for collaboration on this presentation
 - E-ISAC Contact Information:
 - Web site: <https://www.esisac.com>
 - Email: operations@esisac.com
 - Phone: (404) 446-9780 #2
- *Analysis of the Cyber Attack on the Ukrainian Power Grid: Defense Use Case*, March 18, 2016
 - E-ISAC Secure Portal (requires user account):
<https://www.esisac.com/collaboration#/document/4185>
 - SANS Website (need to cut and paste into a browser):
[https://ics.sans.org/media/E-ISAC_SANS_Ukraine_DUC_5.pdf#__utma=216335632.1686484662.1457545401.1457545401.1460576012.2&__utmb=216335632.11.8.1460576065651&__utmc=216335632&__utmz=216335632.1457545401.1.1.utmcsr=\(direct\)|utmccn=\(direct\)|utmcmd=\(none\)&__utmv=-&__utmik=184167141](https://ics.sans.org/media/E-ISAC_SANS_Ukraine_DUC_5.pdf#__utma=216335632.1686484662.1457545401.1457545401.1460576012.2&__utmb=216335632.11.8.1460576065651&__utmc=216335632&__utmz=216335632.1457545401.1.1.utmcsr=(direct)|utmccn=(direct)|utmcmd=(none)&__utmv=-&__utmik=184167141)

SPP RE CIP Team

- Kevin Perry, Director of Critical Infrastructure Protection
(501) 614-3251
- Shon Austin, Lead Compliance Specialist-CIP
(501) 614-3273
- Steven Keller, Lead Compliance Specialist-CIP
(501) 688-1633
- Jeremy Withers, Senior Compliance Specialist-CIP
(501) 688-1676
- Robert Vaughn, Compliance Specialist II-CIP
(501) 482-2301
- Sushil Subedi, Compliance Specialist II-CIP
(501) 482-2332



System Events & Facility Ratings Alert Update

Alan Wahlstrom
Lead Engineer

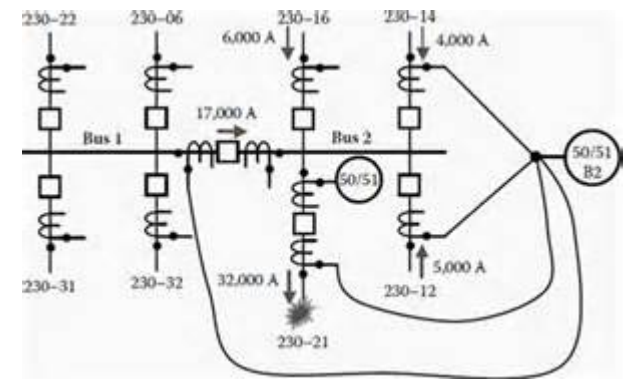
April 25, 2016

SPP Regional Events (January 1-March 31)

- Six events occurred in the SPP region during the first quarter of 2016, compared to four in 2015
- All events were in the lowest assignable risk category
 - Two category 1a. *Loss of three or more elements*
 - Four category 1h. *Partial loss of monitoring and control*

Transmission Lost – Event Category 1a

- Electricians were testing relays at a substation
- When attempting to supply a Loss of Potential alarm to the relay that was being tested, the electrician accidentally tested a different relay that was active causing a back-up fail lock out
- The active relay tripped seven breakers and impacted three other utilities
- Cause attributed to human error



115 KV Line Fault - Event Category 1a

- A line fault caused a 115 KV transmission line protection scheme to operate
- When the protection system tried to auto reclose, one of the breakers failed to operate
- Due to the breaker misoperation three other transmission lines opened
- The operator tried to close-in manually but the line failed to close-in
- Root cause was equipment failure



ICCP Data Not Updated – Event Category 1h

- The Inter-control Center Communications Protocol (ICCP) data link to another utility was down
- Upon restart, the ICCP data was not being updated in the State Estimator
- Cause found to be a buffer memory limitation within the internal data collector
- The company is investigating increasing the memory and resizing the buffer

Primary State Estimator Failed – Event Category 1h

- The hard drive on Primary State Estimator became full and caused failover to the back-up system
- The Supervisory Control and Data Acquisition (SCADA) did not start on the Back-up system
- Support personnel brought system up manually
- The event occurred because there were no alarms to indicate that the disk was 90% percent full



Loss of Communication to RTUs – Event Category 1h

- Testing was being performed for a SCADA software upgrade
- The front-end processor blocked communications with the Remote Terminal Units (RTUs)
- The cause of the communication failure was determined to be a change to a firewall rule
- Firewall rule was changed allowing access permissions



Operator Consoles Disconnected – Event Category 1h

- Online stability testing caused the Operating System to run slow during on line stability testing
- Slow behavior was due to an unusually high number of processes running on the server
- The server's ability to process data caused the operator consoles to disconnect
- System was successfully restarted



NERC LESSONS LEARNED

SOL and IROL Monitoring Tool Leads to Unnecessary Manual Load Shed

- A breaker fault on a shunt reactor caused a line to trip
- Event led to exceedances of two IROL's
- System has both System Operating Limit (SOL) and Inter Regional Operating Limit (IROL)
- SOL was exceeded but not the IROL limit
- Operator was confused and manually shed load



Lesson Learned

- **Clearly differentiate the SOL and IROL limits in the EMS display**
- **Review system operator understanding of the SOL and IROL limits**
- **Provide additional simulation training to operators**

Control Network Communication Path

- Following a failover exercise the utility's router became saturated, preventing communication between the Control Center and Data Center
- Utility lost supervisory control and data acquisition (SCADA)



Lesson Learned

- **Entities running workstations that are remote from EMS/SCADA servers should prioritize network traffic such that situational awareness traffic is prioritized over other network traffic**

NERC Facility Ratings Alert – SPP Region as of March 2016

- **100% High priority line discrepancies complete**
- **78.6% Medium priority line discrepancies complete**
- **89.8% Low priority line discrepancies complete**



Links

- SPP RE Event Analysis Webpage

<http://www.spp.org/section.asp?pageID=142>

- Event Analysis Process Documents

[http://www.nerc.com/comm/OC/Pages/Event-Analysis-Subcommittee-\(EAS\)-2013.aspx](http://www.nerc.com/comm/OC/Pages/Event-Analysis-Subcommittee-(EAS)-2013.aspx)

- SPP Lessons Learned

<http://www.spp.org/section.asp?group=2243&pageID=27>

- NERC Lessons Learned

<http://www.nerc.com/pa/rrm/ea/Pages/Lessons-Learned.aspx>



FERC-NERC-RE Joint Review of Restoration and Recovery Plans

Alan Wahlstrom
Lead Engineer

April 25, 2016

Restoration & Recovery Plan Report

- **Report issued January 29, 2016**
- **Background**
 - **In September 2014, FERC initiated a joint staff review with NERC and the Regional Entities to assess Registered Entities' plans for restoration and recovery of the Bulk Power System (BPS) following a widespread outage or blackout**
- **Primary objectives were to:**
 - **Assess individual plans for restoration and recovery**
 - **Verify how Reliability Standards support the plans (EOP-005, CIP-008 & CIP-009)**

Joint Review Process

- **Information gathered from a representative sample of nine Registered Entities with significant BPS responsibilities**
- **Review team examined the restoration, response and recovery plans of each participant, along with supporting information**

Joint Review Process

- **Documents reviewed include:**
 - **Reliability Coordinator-approved restoration plans**
 - **Procedures for deploying blackstart resources**
 - **Steady state and dynamic simulations testing the effectiveness of the plans**
 - **Cyber security incident response plans and recovery plans for critical cyber assets**
- **Review team then evaluated the associated Standards & to determine any reliability gaps**

Joint Review Conclusions

- Overall, the joint staff review team found:
 - Participants have system restoration plans that, for the most part, are thorough and highly detailed
 - Participants had extensive cyber security incident response and recovery plans for critical cyber assets



High-Level Recommendations

- **Consider making changes to the current Standards to address the issues and recommendations set out in the report**
- **Perform further studies in certain areas, including those in which CIP Standards have yet to go into effect**
- **Other Registered Entities responsible for system restoration, cyber security incident response, or recovery readiness consider incorporating similar practices into their plans and processes**

Recommendations

Report includes 15 recommendations that support the high-level recommendations:

1. Clarify when system changes will trigger a requirement to update restoration plans
2. Perform verification & testing of modified restoration plan
3. Conduct Operator training exercises on transferring control back to the balancing authority
4. Plan for loss of SCADA and loss of other data sources
5. Gain further understanding of recent blackstart resource changes

Recommendations

6. Gain further understanding of the use of direct current (DC) facilities for restoration
7. Blackstart resource testing under anticipated blackstart conditions
8. Obtain insight from entities that have experienced a widespread outage



RECOMMENDED

Recommendations

Cyber Incident Response and Recovery Plan Recommendations

9. **Response and recovery plan ownership**
10. **Require details on types of cyber security events that trigger a response and reporting**
11. **Use of technical expertise and advanced tools**
12. **Recovery plan inventory assumptions risk**
13. **Independent review of cyber security response and recovery plans**
14. **Conduct response and recovery plan exercises using paper drills**
15. **Gain further understanding of response and recovery plan updating following testing or actual cyber events**

Link to Report

- <http://www.ferc.gov/legal/staff-reports/2016/01-29-16-FERC-NERC-Report.pdf>



Enforcement Update

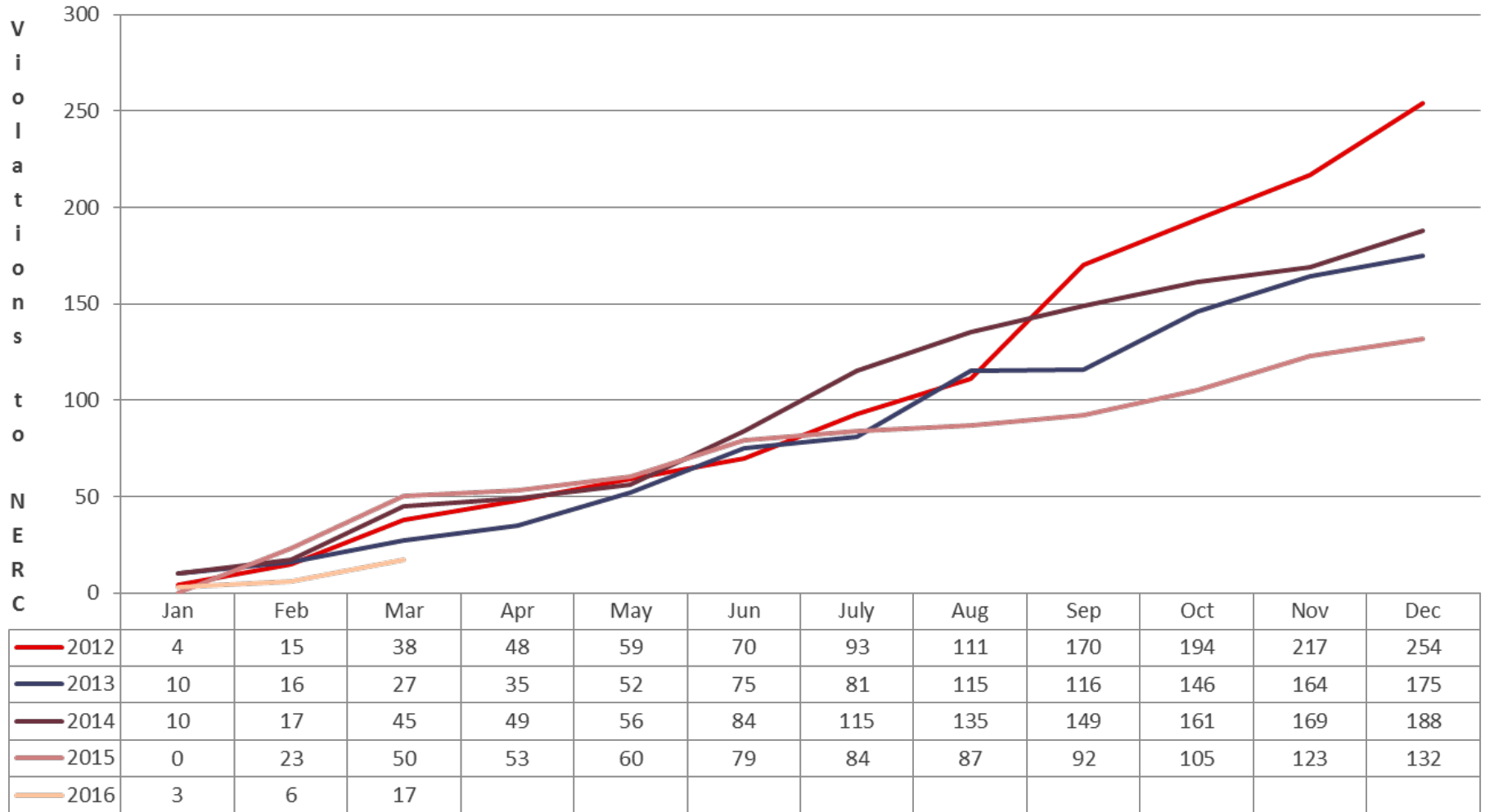
April 25, 2016

Joe Gertsch
Manager of Enforcement

SPP RE Enforcement Activities March 31, 2016	2007	2008	2009	2010	2011	2012	2013	2014	2015	January	February	March	Total 2016
Notice of Preliminary Screen Issued	-	-	-	-	-	-	-	121	89	4	0	6	10
Notice of Possible Violations Issued	6	56	132	254	239	173	189	107	71	4	2	0	6
Notice of Alleged Violation (NAVAPS)													
NAVAPS Issued	6	45	10	7	0	2	1	6	0	0	0	0	0
Notice of Confirmed Violation (NOCV)													
NOCV Sent to Entity/NERC	0	8	25	15	4	1	0	1	0	0	0	0	0
NOCV BOTCC Approved	0	7	11	29	4	1	0	1	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	0	0
BOTCC Approved	0	0	0	50	81	103	14	30	24	0	0	0	0
Settlements / Spreadsheet NOP													
To NERC for Approval	0	0	0	16	22	49	43	59	8	0	0	0	0
BOTCC Approved	0	0	0	0	38	49	65	46	8	0	0	0	0
Find, Fix, Track													
To NERC for Approval	-	-	-	-	43	78	86	62	13	1	0	2	3
BOTCC Approval	-	-	-	-	36	74	95	61	14	1	0	1	2
Compliance Exception	-	-	-	-	-	-	-	1	69	2	3	10	15
Dismissals													
To NERC/SPP RE SRT for Approval	0	0	1	16	75	43	41	44	14	0	0	1	1
NERC/SPP RE SRT Approved		0	1	16	75	43	41	44	14	0	0	1	1
Notice of Penalty													
Approved by FERC	0	5	13	57	180	184	141	118	15	16	0	0	16
Violations Awaiting NERC Approval												18	
Active Violations - Caseload												54	
Caseload Index (months)*												6.8	

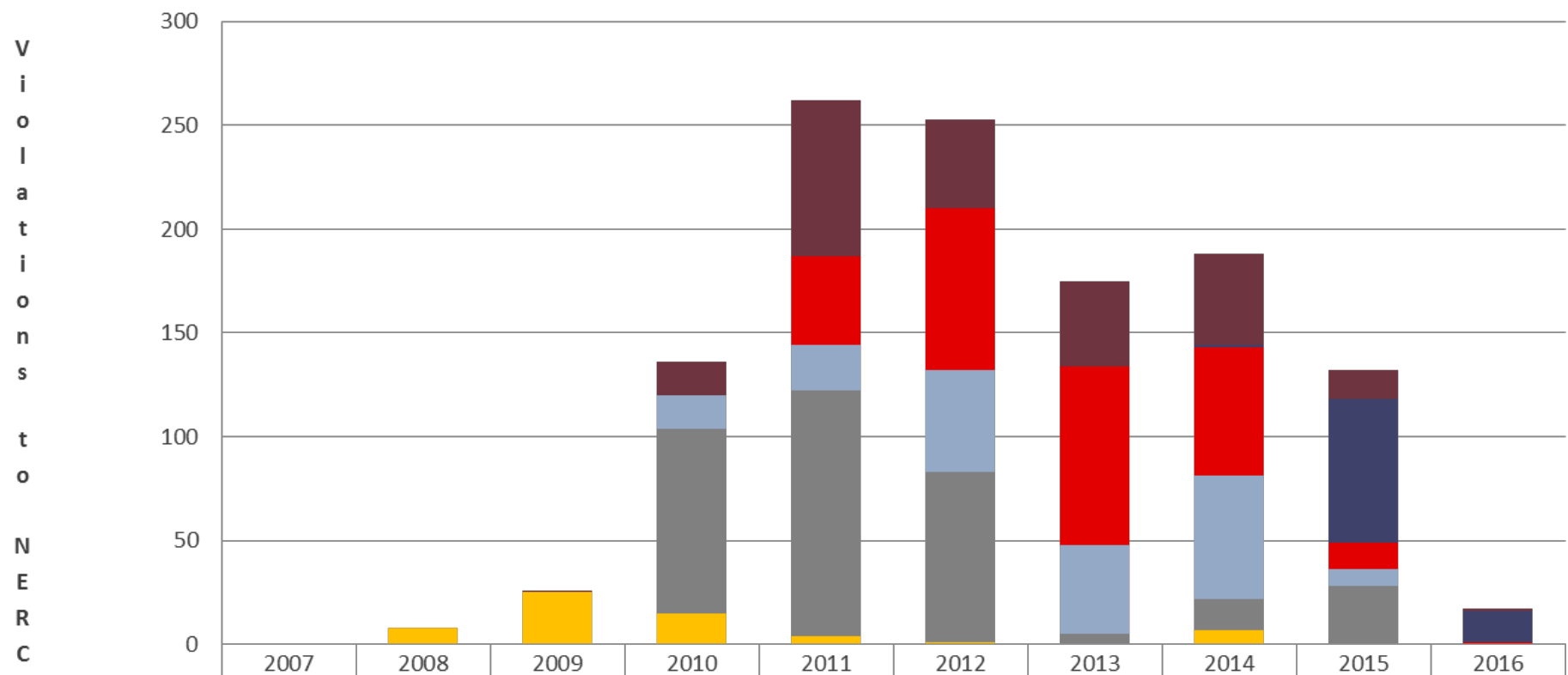
* Based on previous 12 months processing (96)

Enforcement Monthly Violation Processing



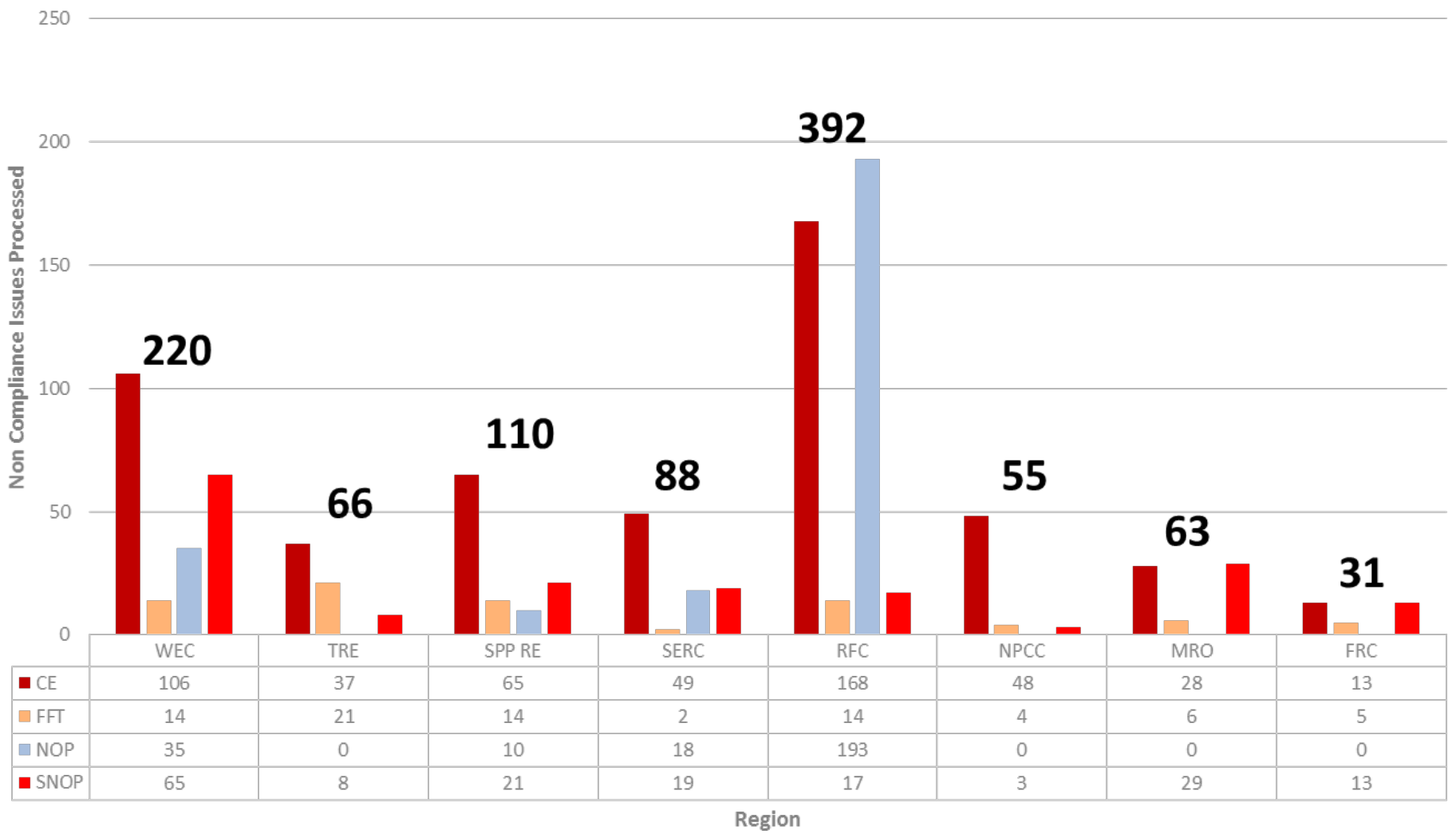
Running Total Violations

Enforcement Processing Methods



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Dismissals	0	0	1	16	75	43	41	44	14	1
Comp. Exception	0	0	0	0	0	0	0	1	69	15
Find, Fix, Track	0	0	0	0	43	78	86	62	13	1
SNOP	0	0	0	16	22	49	43	59	8	0
Settlement	0	0	0	89	118	82	5	15	28	0
NOCV	0	8	25	15	4	1	0	7	0	0

Disposition by Region - 2015



Enforcement Caseload – March 31, 2016

- **71 - Active SPP RE Violations**
 - 15 - Settlement
 - 39 - Settlement Not Requested (NAVAPS/NOCV)
 - 30 – Multi Region Registered Entity (MRRE) - SPP RE Lead on 13

- **24 - 693 Violations**

- **47 - CIP Violations**

- **3 - High Impact Violations**

- **Discovery Method**
 - 37 - Audit
 - 29 - Self Report
 - 3 - Self Certification
 - 2 - Log

Caseload Aging

- **SPP RE – 54 violations**

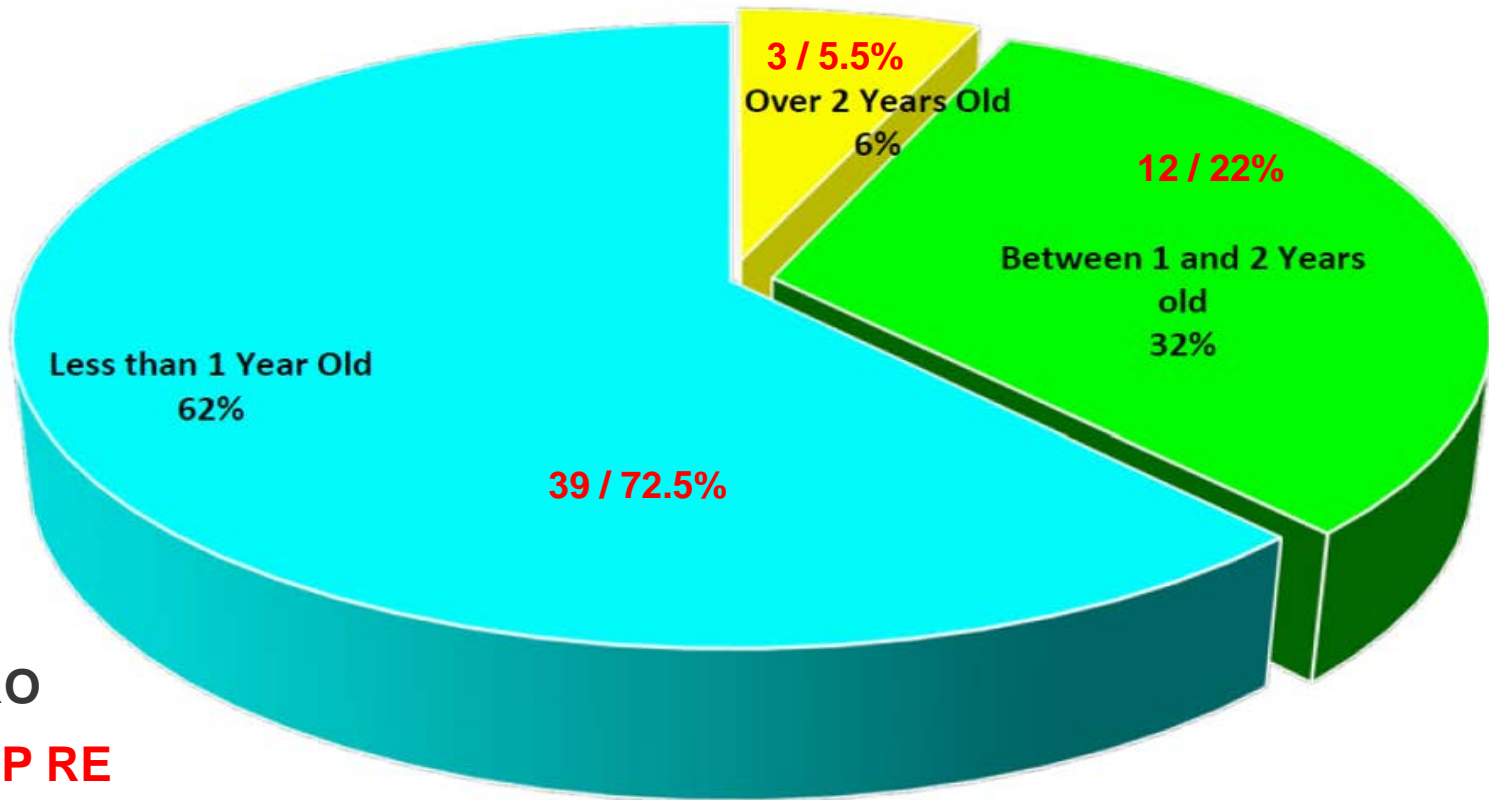
- **Average age - 298 days**

<u>Age (days)</u>	<u>Violations</u>
> 300	25
201 – 300	16
101 – 200	4
51 – 100	4
1 - 50	5

- **Pre-2015 violations: 15**

- **MRRE: 17 violations, average age - 589 days**

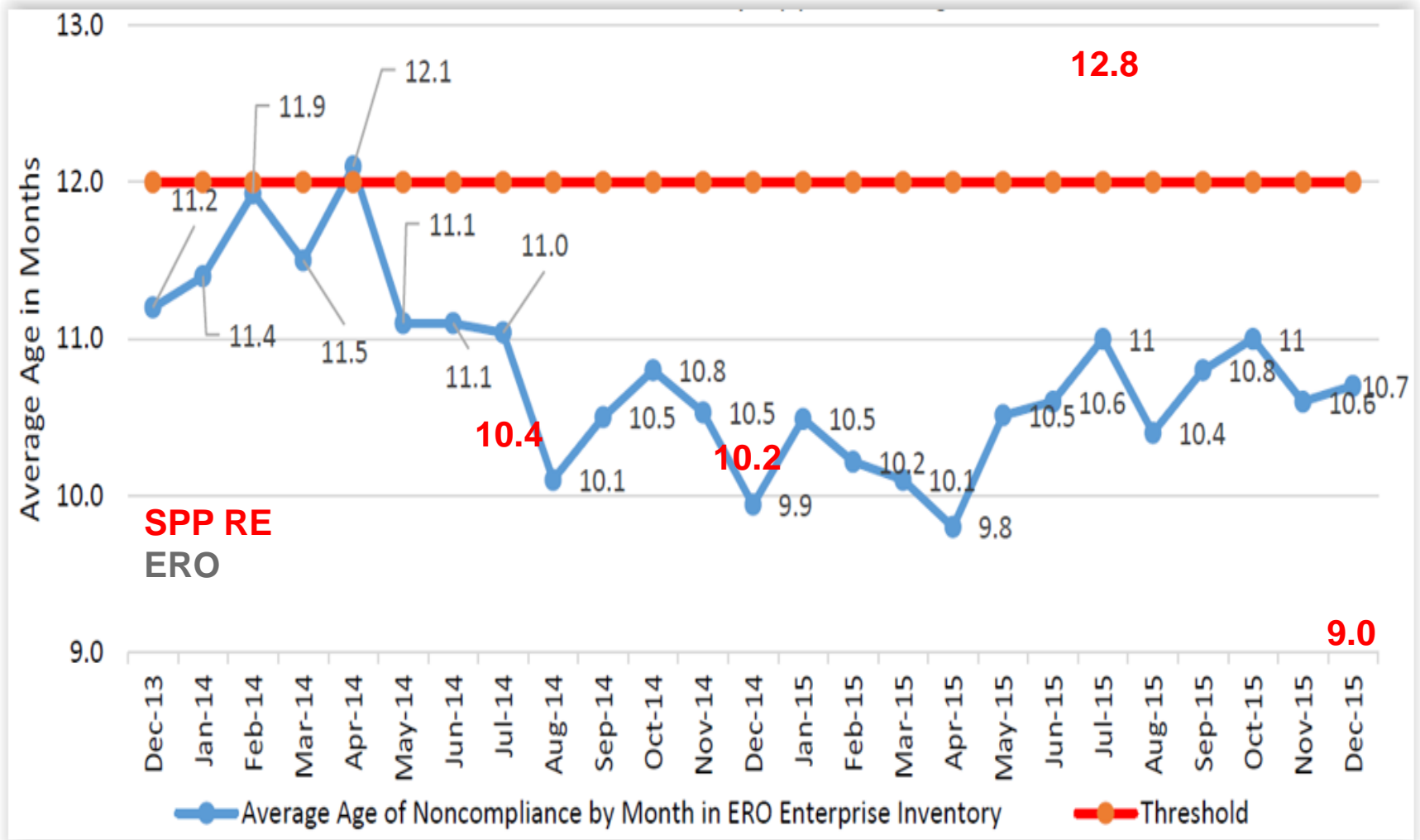
ERO & SPP RE Noncompliance Age



ERO

SPP RE

Average Age of Noncompliance in ERO Inventory



High Impact Violation Summary

- **3 – Open High Impact Violations**
 - 1 - Settlement
 - 1 – MRRE
 - 1 – Non Settlement
- **Open High Impact Violations Mitigation Status**
 - 1 – Completion Verified
 - 1 – Dismissal / Transfer
 - 1 – Initiated

SPP RE 2015 Violation Dismissals

Consolidation with another violation	0
NERC V3 – V5 Guidance (approach 2)	1
Self-Report wrong standard and/or requirement.....	0
Provided exculpatory evidence	0
Incorrect Interpretation of Standard	<u>0</u>
Total	1

March Mitigation Plan Summary

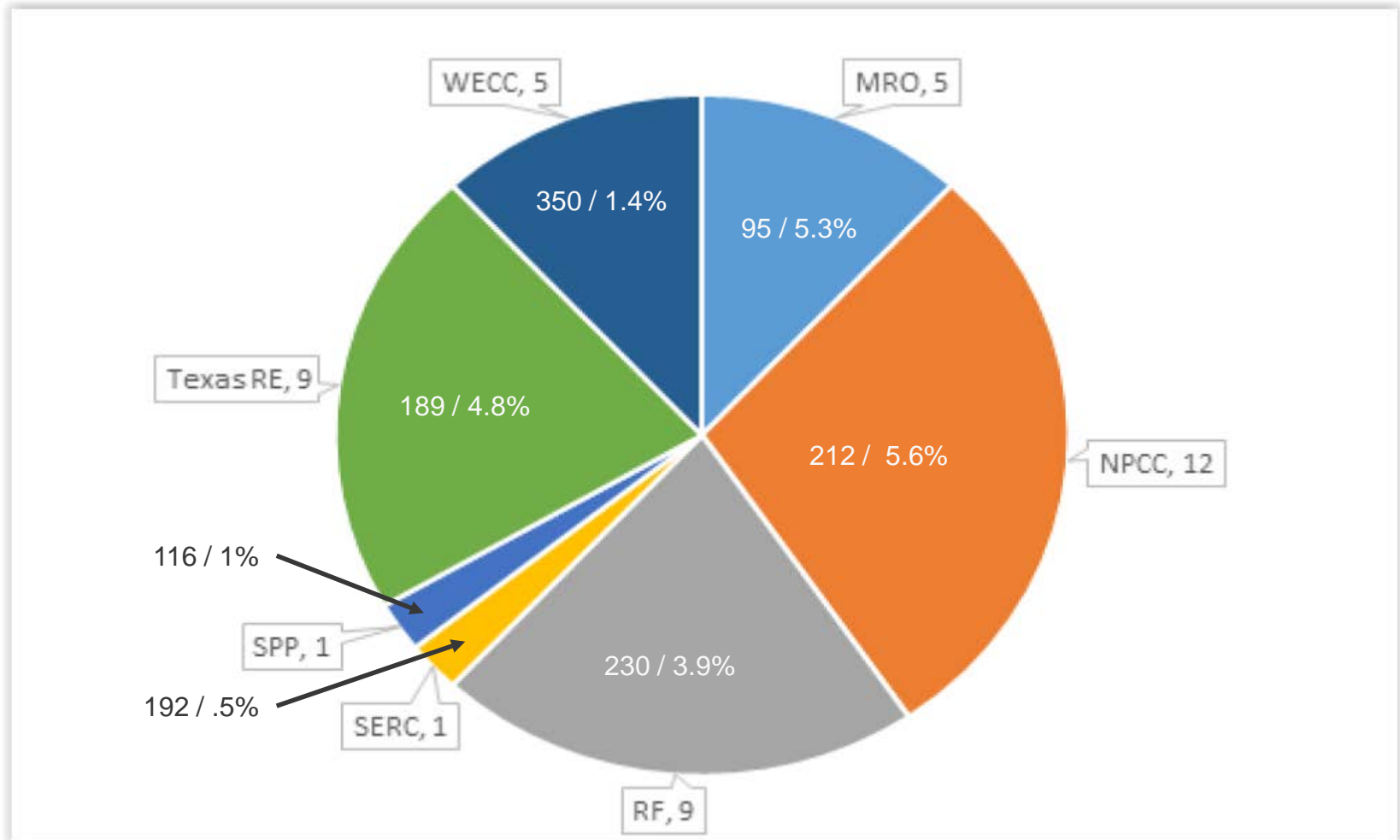
- **Mitigation Plan Status (month/year)**

Submitted	1/7
Accepted	1/4
Certified Complete	2/8
Completion Verified	2/18
Mitigating Activity Completed	7/10

- **Active Violations with no Mitigation Plans**

Initiated	30
Rejected	7

Self-Logging Entities by Regional Entity





SPP *Southwest
Power Pool
Regional Entity*

Joe Gertsch
Manager of Enforcement
jgertsch.re@spp.org
501-688-1672



General Manager's Report

April 25, 2016

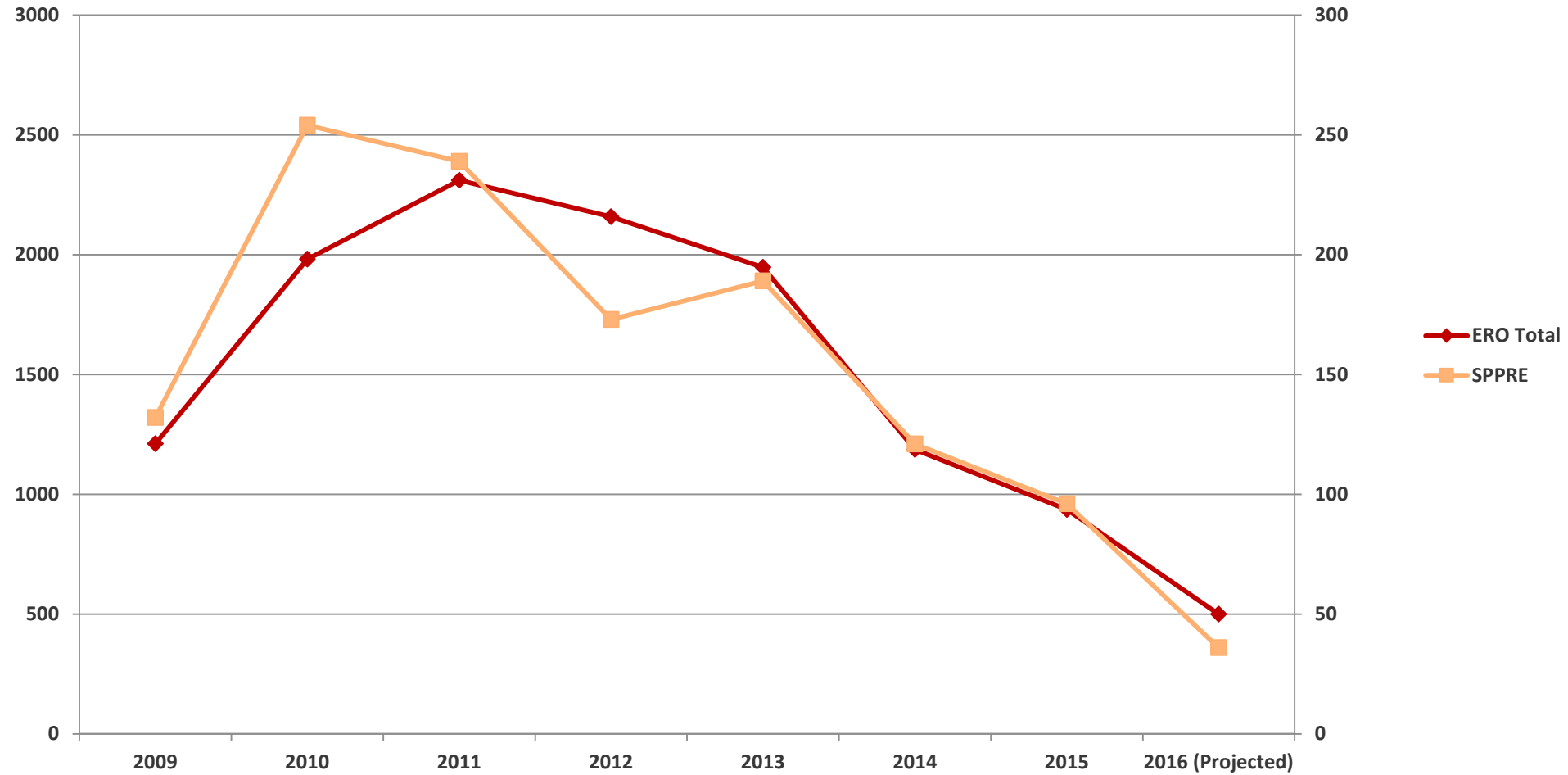
Santa Fe, New Mexico

Ron Ciesiel
SPP RE General Manager

SPP RE Administration

- **FERC approved Regional Delegation Agreement**
- **John Meyer resigned as SPP RE Trustees Chair due to conflict with service on PEAK Reliability board**
- **Dave Christiano was elected as SPP RE Trustees Chair**
- **Search for two new Trustees is underway**
- **Expect to appoint new Trustees in July timeframe**

Violations by Year



Most Violated Standards

Based on rolling 12 months through 3/31/16 [Represents ~ 84% of total violations]

SPP RE Rank	Standard	Description	Violations Current Period	Violations Previous Period	Δ	Risk Factor
1	PRC-005	Protection System Maintenance	9	3	+6	High/Med.
2	CIP-007	Systems Security Management	9	28	(19)	Med./Lower
3	CIP-005	Electronic Security Perimeters	6	16	(10)	Med./Lower
4	CIP-006	Physical Security - Cyber Assets	6	11	(5)	Med./Lower
5	VAR-002	Network Voltage Schedules	5	4	+1	Med./Lower
6	FAC-008	Facility Ratings	3	6	(3)	Med./Lower
7	PRC-023	Transmission Relay Loadability	3	0	+3	High/Lower
8	PRC-006	Automatic UFLS	3	0	+3	High/Lower
9	CIP-004	Personnel & Training	2	8	(6)	Med./Lower
10	PRC-008	UFLS Relay Maintenance	2	2	0	Medium
	All	SPP RE Top 10 Total Incoming	48	78	(30)	

The current period is the most recent 12 months.
The previous period is the previous 12 month period.

VEGETATION CONTACTS

REPORTABLE

ACTIONABLE

NERC

4Q-2015

3Q-2015

(4Q-2015 LAST
OFFICIAL REPORT)

SPP RE

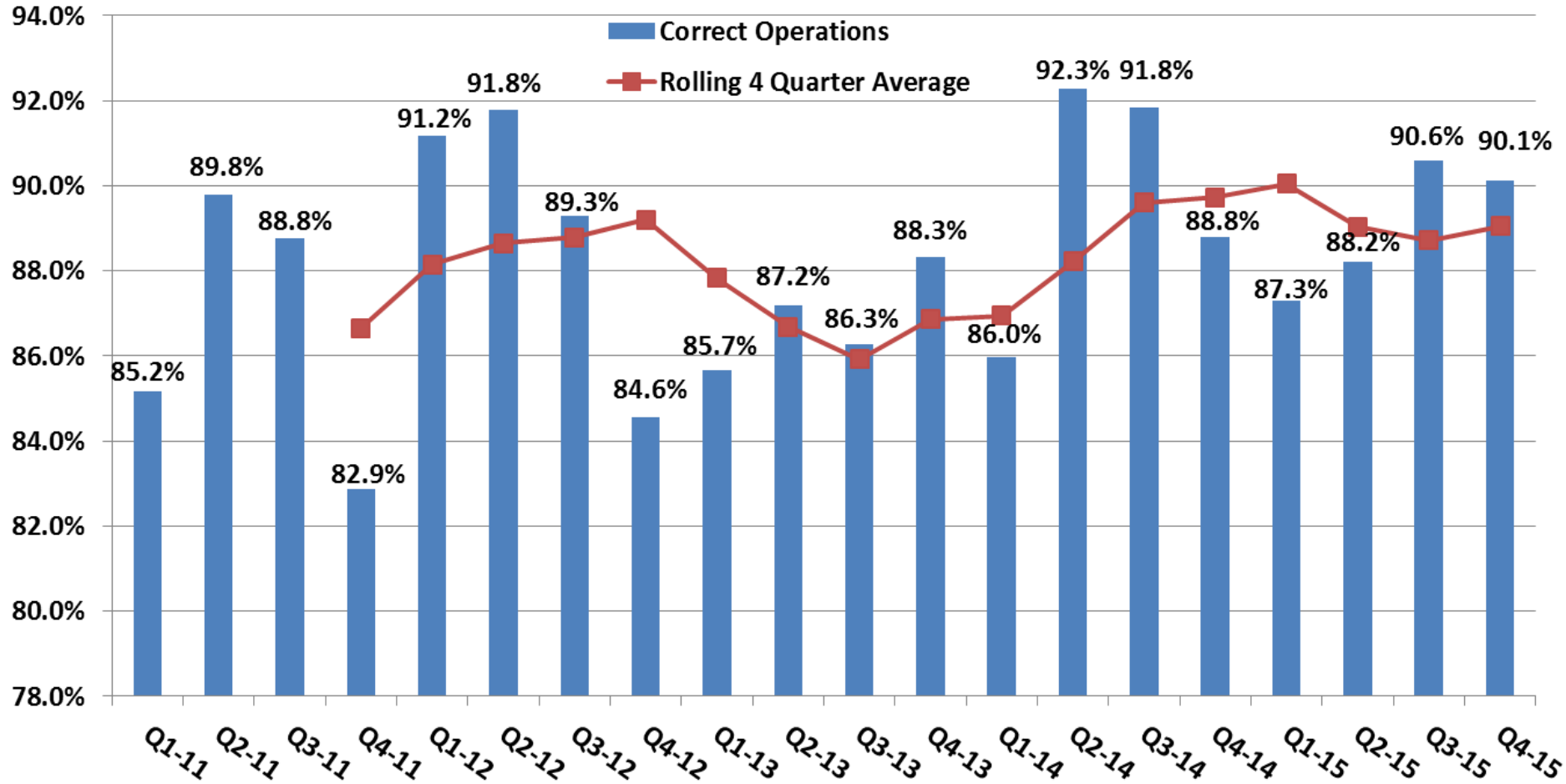
4Q-2015

3Q-2010

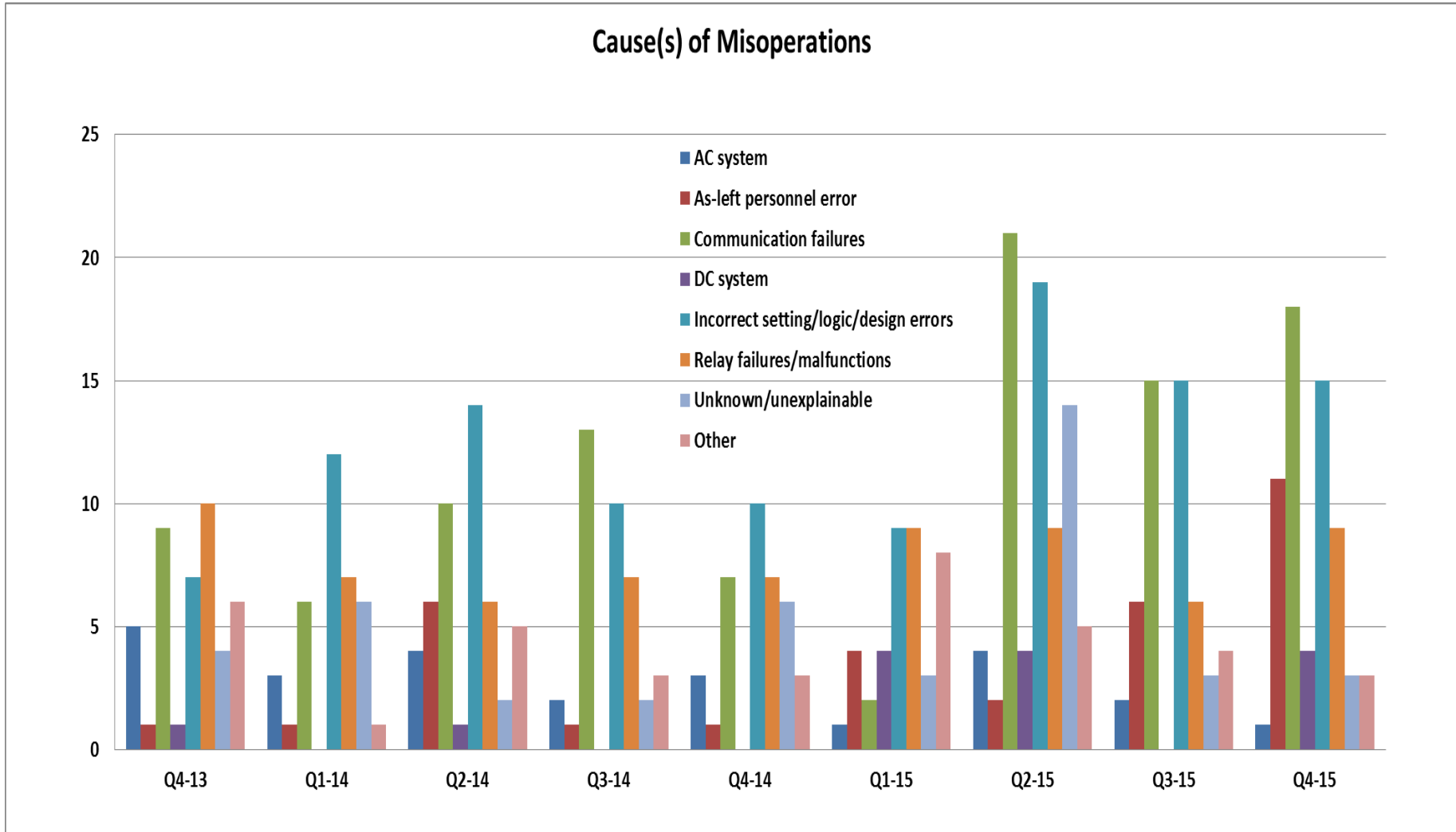
(1Q-2016 LAST
OFFICIAL REPORT)

SPP RE Misoperation Report as of 4Q-15

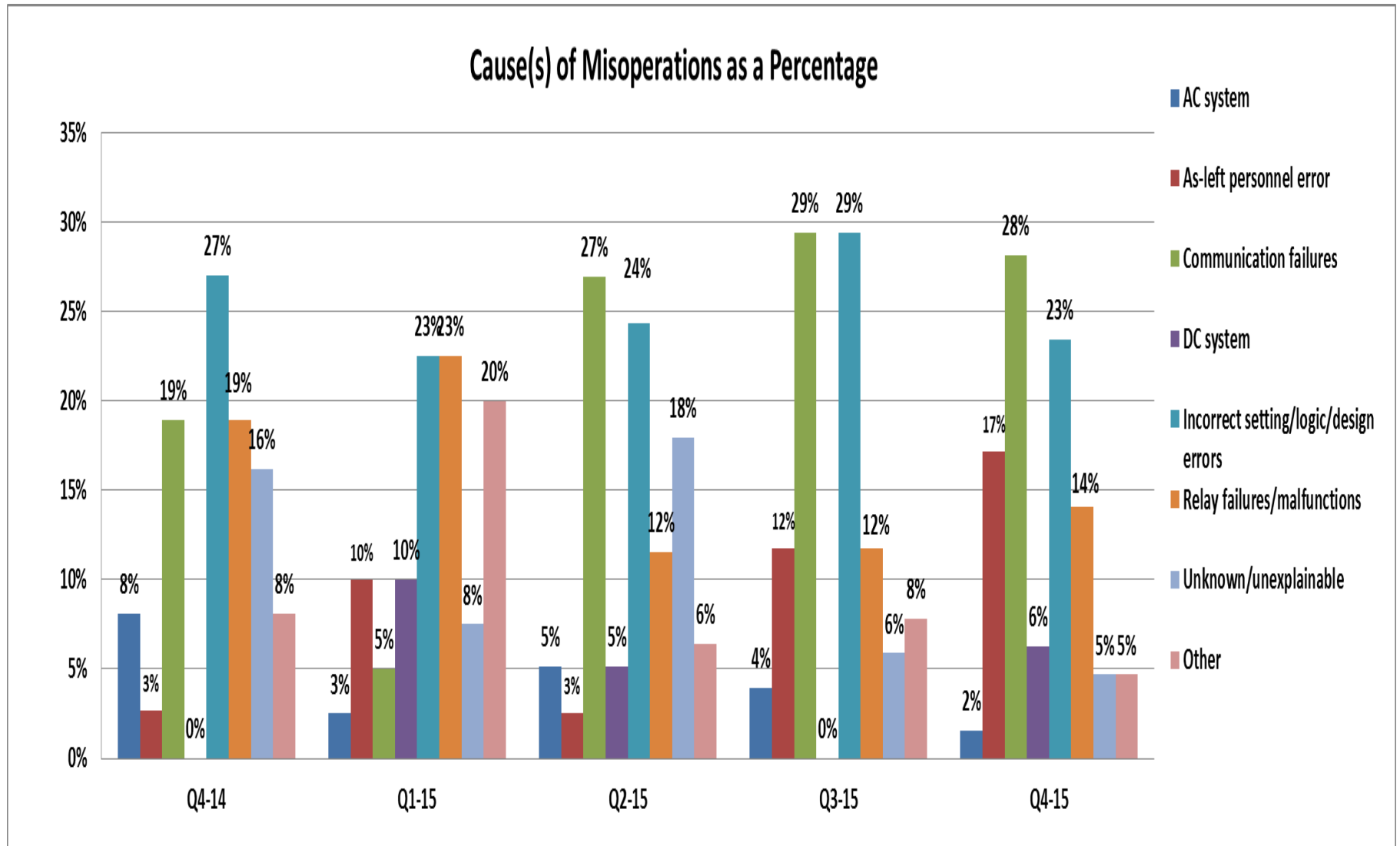
Relay Operational Performance- Success Rate



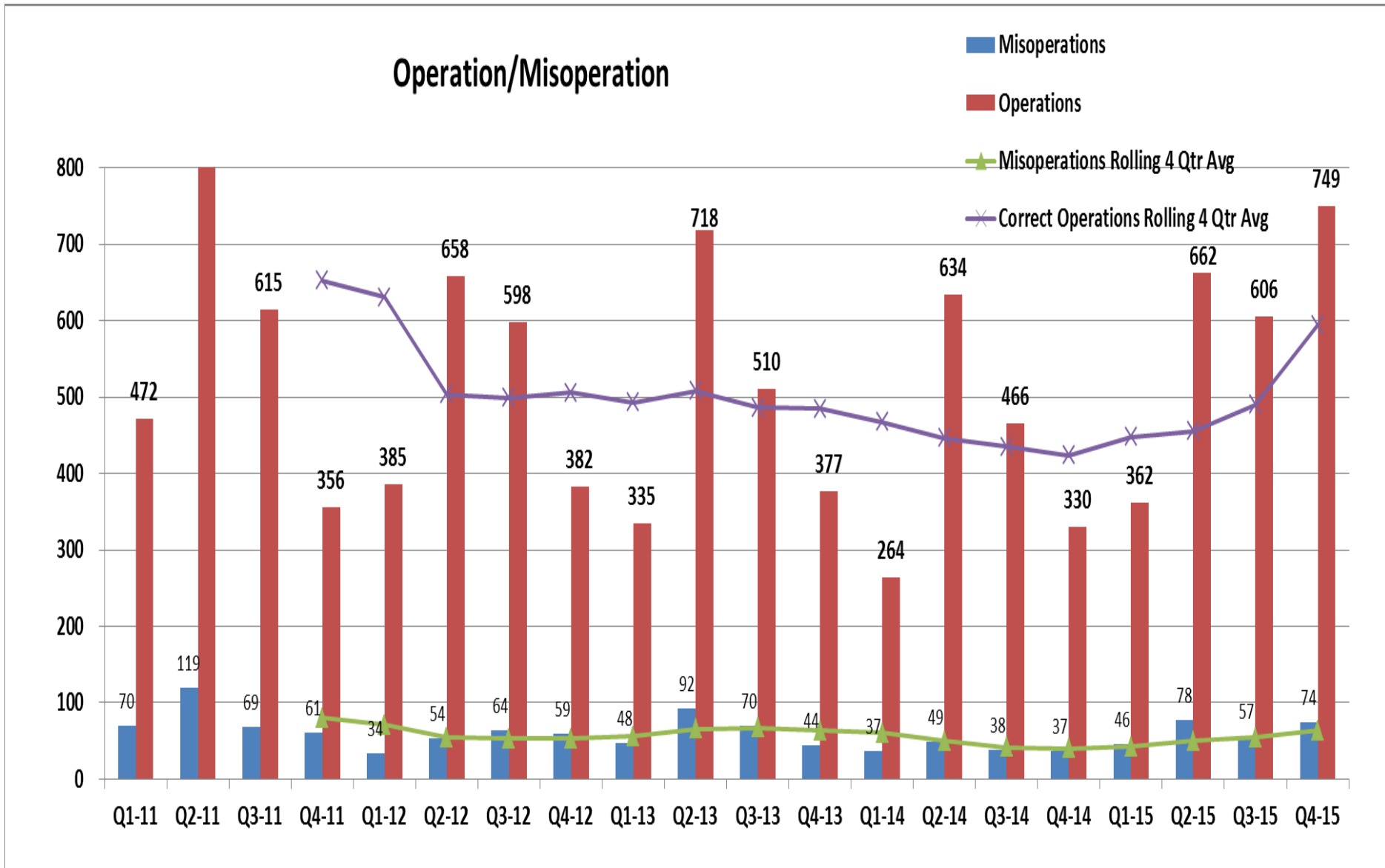
Causes of Misoperations 4Q-13 to 4Q-15



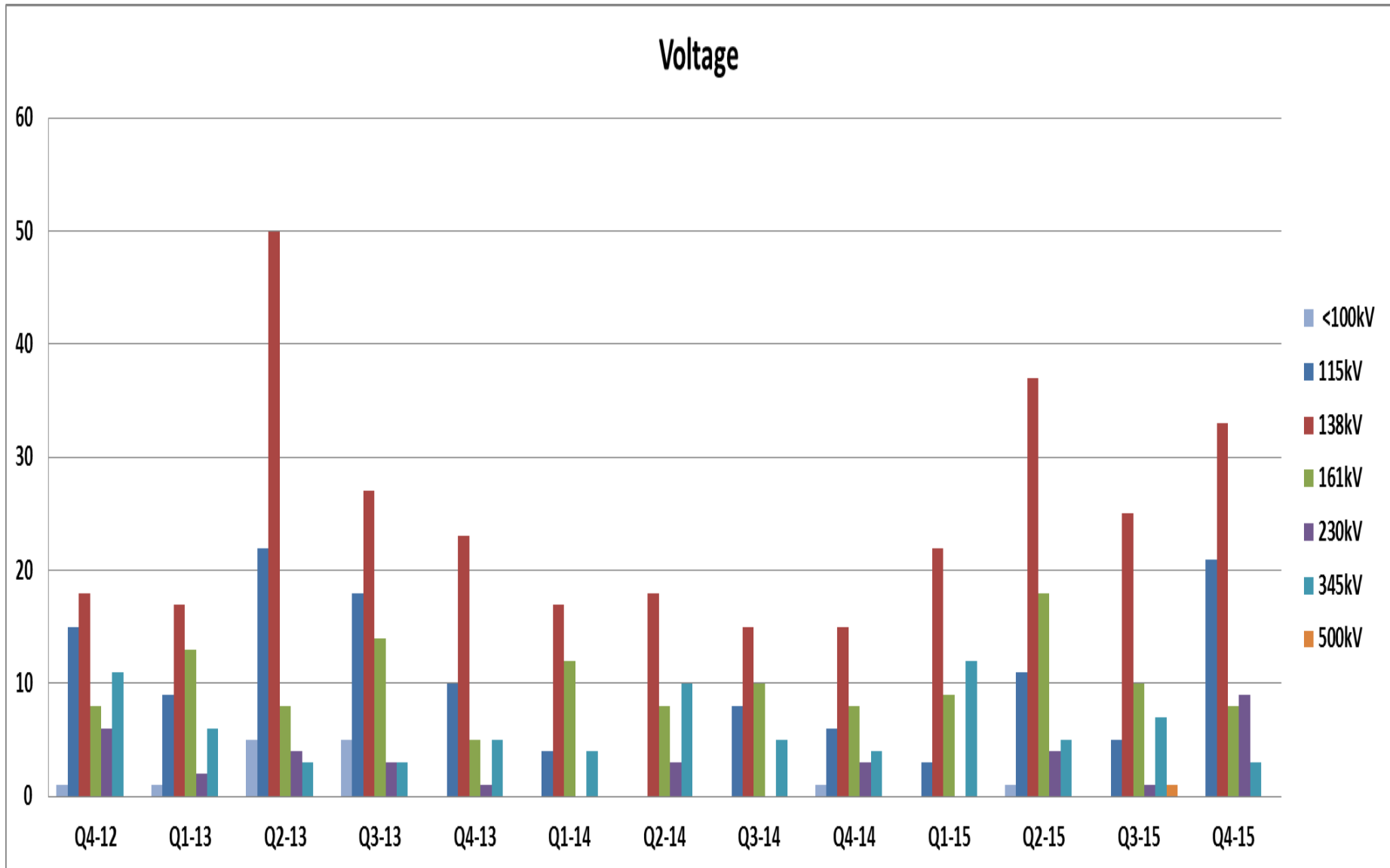
Causes of Misoperations as a percentage 4Q-14 to 4Q-15



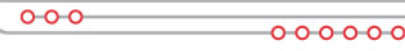
Operation/Misoperation Comparison



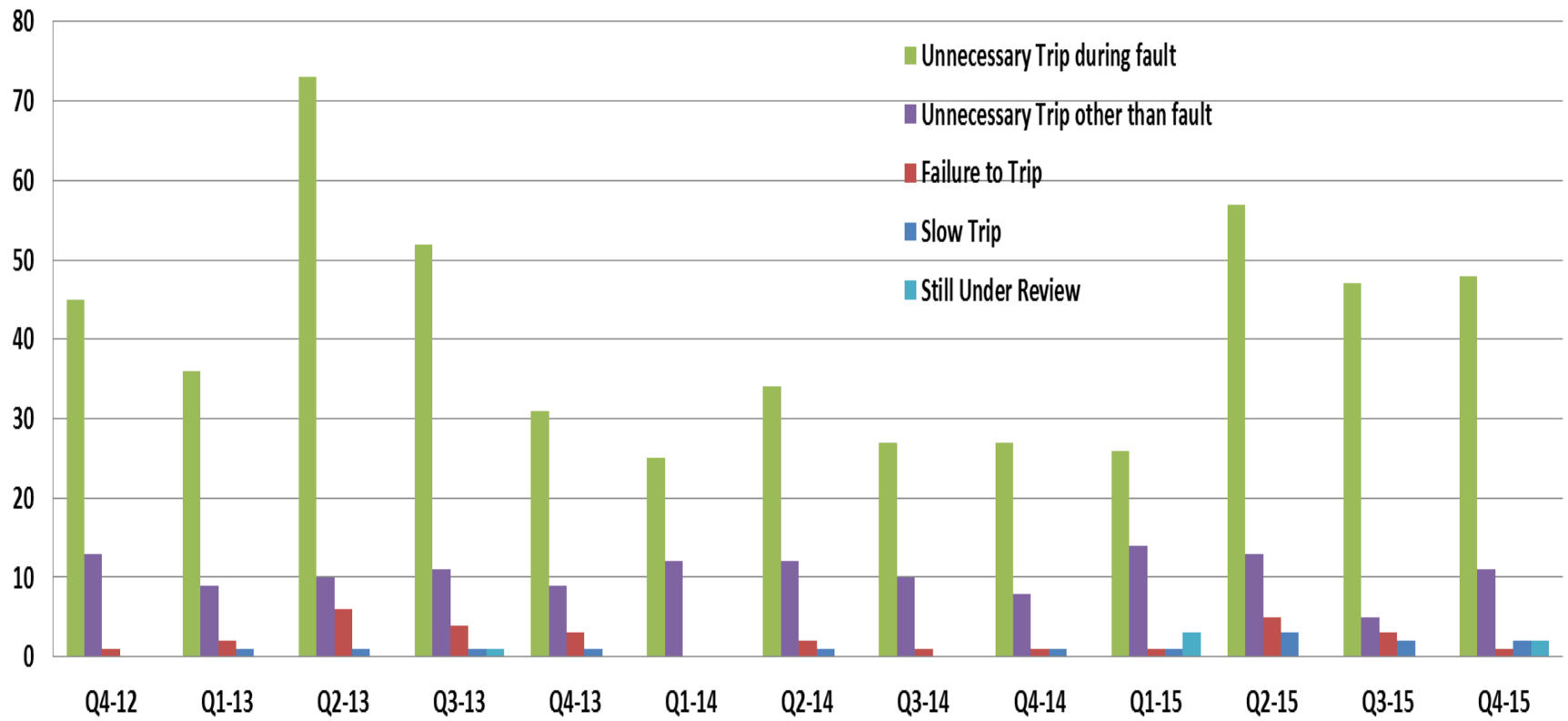
Misoperations by Voltage



Misoperations by Type



Misoperation Category



SPP RE Regional Events 1Q 2016

- Four category 1h. *Partial loss of monitoring or control at a control center for 30 minutes*
- Two category 1a. *Outage of multiple elements.*

Facility Ratings Alert (as of 12/31/15)

- High Priority Lines - 100 % complete
- Medium Priority Lines - 79% complete
- Low Priority Lines - 90% complete

New Standards: July 1, 2016

- BAL-001-2 Real Power Balancing Control Performance
- COM-002-4--Operating Personnel Communications Protocols
- MOD-025-2--Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability
- MOD-031-1—Demand and Energy Data

New Standards: July 1, 2016

- PER-005-2 Operations Personnel Training
- PRC-002-2 – Disturbance Monitoring and Reporting Requirements
- PRC-004-4(i) – Protection System Misoperation Identification and Correction
- PRC-019-2 — Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection
- PRC-024-2 — Generator Frequency and Voltage Protective Relay Settings

New Standards: July 1, 2016

- CIP-002-5.1 – Cyber Security – BES Cyber System Categorization
- CIP-003-6 – Cyber Security – Security Management Controls
- CIP-004-6 – Cyber Security – Personnel & Training
- CIP-005-5 – Cyber Security – Electronic Security Perimeter(s)
- CIP-006-6 – Cyber Security – Physical Security of BES Cyber Systems

New Standards: July 1, 2016

- CIP-007-6 – Cyber Security – System Security Management
- CIP-008-5 – Cyber Security – Incident Reporting and Response Planning
- CIP-009-6 – Cyber Security – Recovery Plans for BES Cyber Systems
- CIP-010-2 – Cyber Security – Configuration Change Management and Vulnerability Assessments
- CIP-011-2 – Cyber Security – Information Protection

New Standards: October 1, 2016

- [MOD-31-2 – Demand and Energy Data](#)

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

- [EOP-004-3 – Event Reporting](#)
- [EOP-011-1 – Emergency Operations](#)
- [FAC-010-3 – System Operating Limits Methodology for the Planning Horizon](#)
- [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](#)

New Standards: April 1, 2017

- [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](#)
- [IRO-017-1 – Outage Coordination](#)
- [MOD-029-2a – Rated System Path Methodology](#)
- [MOD-030-3 – Flowgate Methodology](#)

New Standards: April 1, 2017

- PRC-010-1 – Undervoltage Load Shedding
- PRC-012-1 – Remedial Action Scheme Review Procedure
- PRC-013-1 – Remedial Action Scheme Database
- PRC-014-1 – Remedial Action Scheme Assessment
- PRC-015-1 – Remedial Action Scheme Data and Documentation

New Standards: April 1, 2017

- PRC-016-1 – Remedial Action Scheme Misoperations
- PRC-017-1 – Remedial Action Scheme Maintenance and Testing
- 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](#)

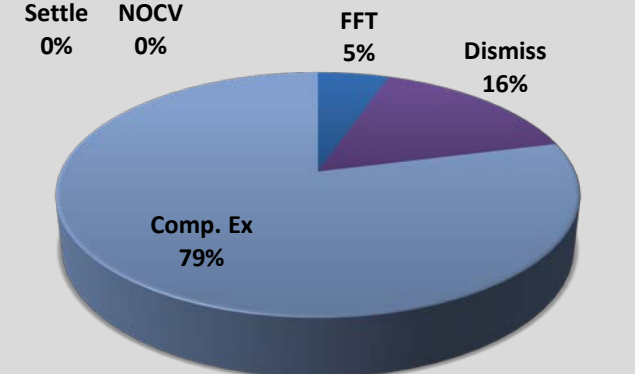
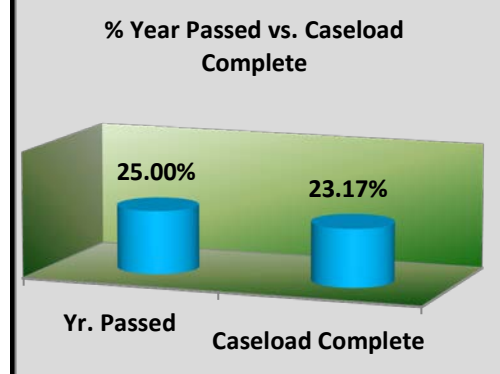
SPP RE Metrics Reporting as of March 31, 2016

w/in Target Outside Target but w/in Allotted Range Outside Allotted Range

1. Maintain Caseload

Maintain a one year caseload

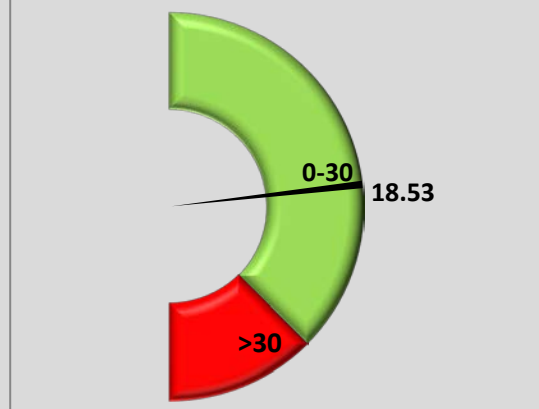
FFT	Settle	Dismiss	NOCV	Comp. Ex	Total:	Yr. Passed	25.00%
1	0	3	0	15	19	Caseload Complete	23.17%



2. Mit. Accept/Reject

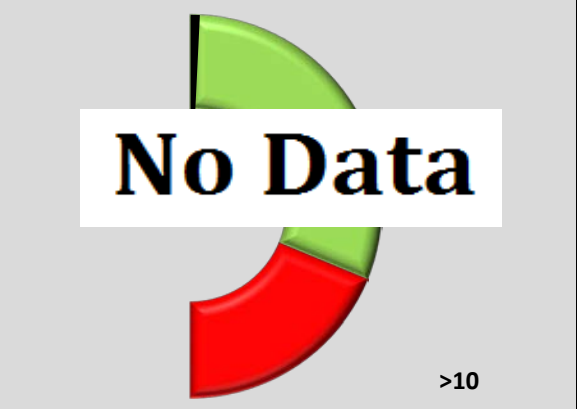
Accept/Reject Mit Plans w/in 30 days

Current Avg. Days :	18.53
Metric Eligibility :	1.00



Accept/Reject Resubmitted Mit Plans w/in 10 days

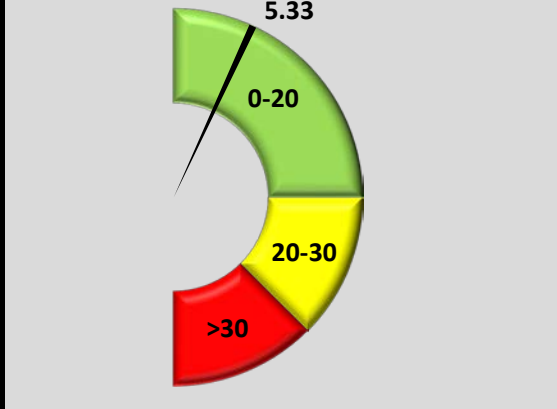
Current Avg. Days :	0%
Metric Eligibility :	100%



3. Mit. Plan Completion

Complete Mitigation reviews <= 20 days

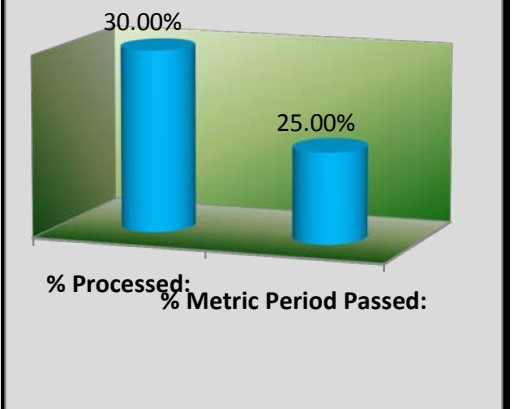
Current Avg. Days :	5.33
---------------------	------



4. Process Pre-2014 Violations

Process 100% of Pre-2015 Caseload

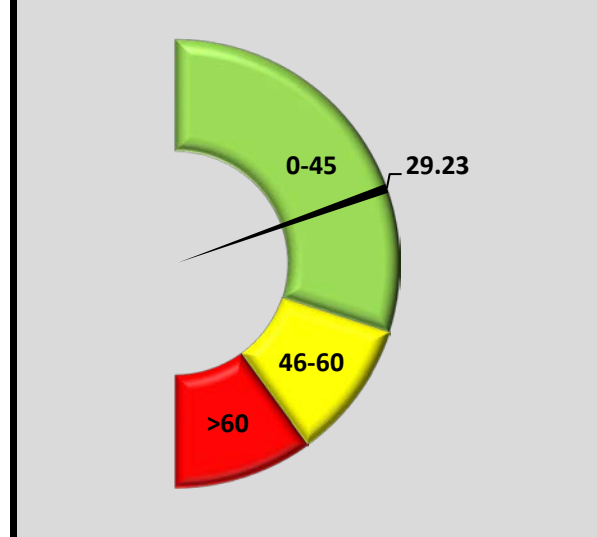
% Processed:	30.00%
% Metric Period Passed:	25.00%



5. 45 Day Triage

Complete Incoming Compliance Issue Triage in <= 45 days

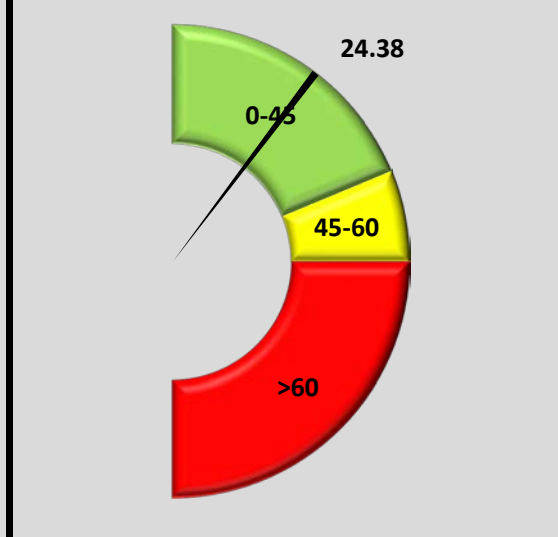
Current Triage Avg. :	29.23
-----------------------	-------



6. Records Close Out

Average Days to Close Out Violation Record

# of Violations closed out	35
----------------------------	----



7. Publish Off-Site Audit

Publish Off-site w/in 45 days

# Published YTD:	1
# of Reports Published in more than 45 Days	0

Average Publishing Time <=45 Days	0
Average Publishing Time 45-50 Days	0
Average Publishing Time >=50 Days	0

Average Days to Publish	27
% Published Reports <=45 Days	100%



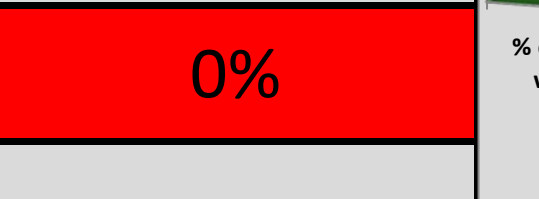
8. Publish On-Site Audit

Publish On-site w/in 65 days

# Published YTD:	0
# of Reports Published in more than 65 Days	0

Average Publishing Time <=65 Days	0
Average Publishing Time 65-75 Days	0
Average Publishing Time >=75 Days	0

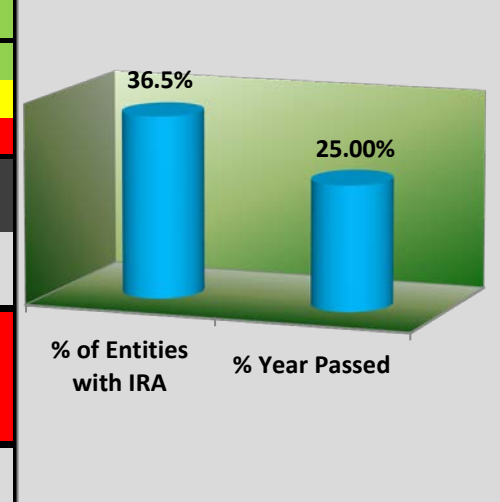
Average Days to Publish	0
% Published Reports <=65 Days	0%



9. IRAs Completed

Complete an IRA on 100% of Registered Entities

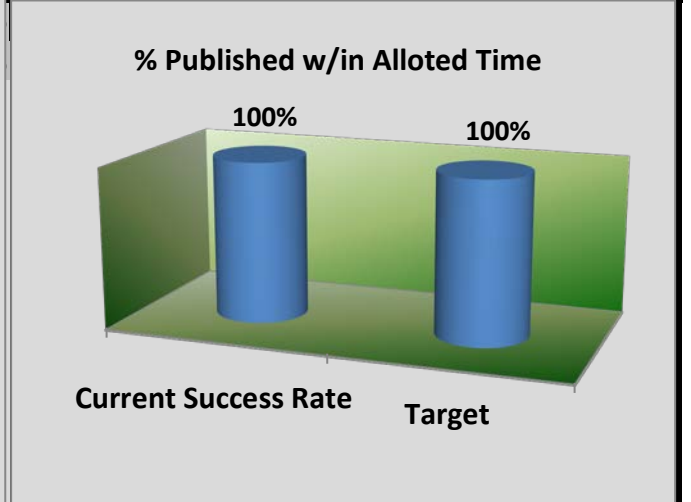
# of IRAs Completed	31
Target	85



11. Publish: Excep., PDS, Self-cert

Publish reports w/in allotted timeframe 100% of time or greater

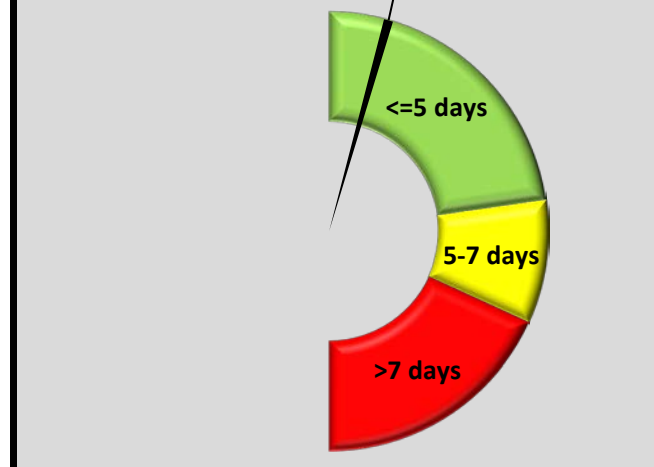
Current Success Rate	100%
Target	100%



11. Incoming Processing

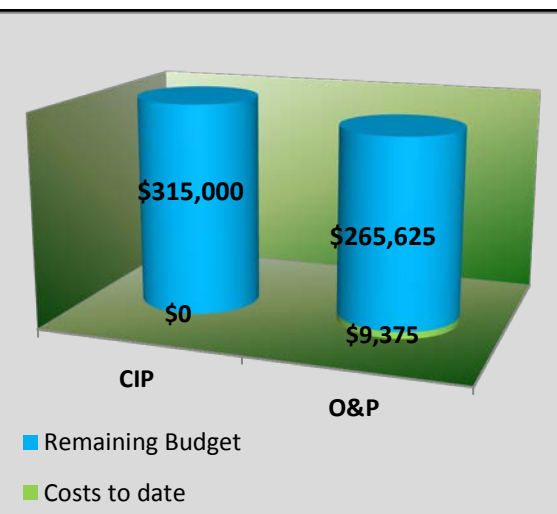
Notify NERC of new violations w/in 5 business days

Current Average Days :	0.90
Target	0.90



12. Cost Control

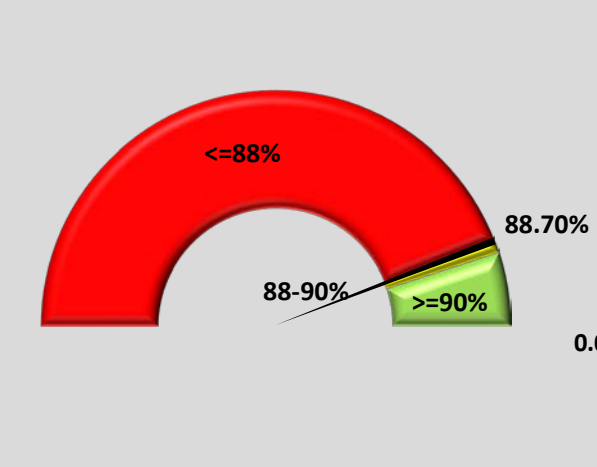
Maintain Costs at or below 2014 projections



13. Maintain/Increase Misop Success

90 % success rate or greater over rolling 4 quarter avg.

Current Success Rate:	88.70%
-----------------------	--------



14. Cause Code Success Rate

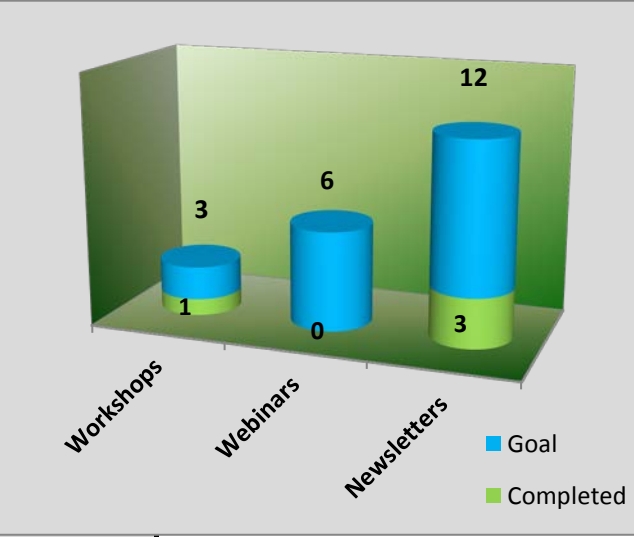
Achieve 100% success rate in Cause Coding Events

Current Success Rate:	0.00%
-----------------------	-------



15. Outreach

Conduct 3 Workshops, 6 webinars, and 12 newsletter in '16





Outreach Update

April 25, 2016

Santa Fe, New Mexico

Emily Pennel

SPP RE Trustees Secretary and Outreach Coordinator

Outreach

- **2016 Workshops**

- March 15-16, Little Rock
 - 188 attendees
- May 24-25, CIP, Little Rock
 - Three speakers from NERC, including CEO Gerry Cauley
 - Dept. Homeland Security and six Registered Entities presenting
- Sept. 20-21 Oklahoma City

- **2016 Trustee Meetings**

- [July 25, 2016](#), Rapid City
- [October 24, 2016](#), Little Rock

NERC Compliance and Certification Committee Meeting Notes
March 1-2, 2016
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 March 1-2, 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 March 2016 AgendaPackage 1.pdf](http://www.nerc.com/comm/CCC/Agenda%20Highlights%20and%20Minutes%202013/CCC%20March%202016%20AgendaPackage%201.pdf)

Minutes and additional background materials should be posted in the next few weeks. A complete record, actions not reflected below, CCC administrative business and NERC Staff updates can be found in the minutes when posted.

Independent Audit of NERC CMEP and ORCP

Matt Gibbons, NERC Internal Audit, provided an update on the audit of NERC's Compliance Monitoring and Enforcement Program (CMEP) and Organization Registration and Certification Program (ORCP). CCC members continue participating in the audit as observers. As of the CCC meeting, the auditors had submitted data requests and begun reviewing submissions. Interviews were scheduled to start the week of the CCC meeting.

Update on NERC Standards Process Manual Audit Recommendations

Mat Bunch, NERC Standards Development, provided an update on recommendations and outstanding items from the audit of the NERC Standards Process Manual. Measures have been implemented to ensure the members of the ballot pool vote to meet quorum and proactive communications continue when there is an apparent risk to achieving quorum. In addition, a quality review process for Reliability Standards Audit Worksheets (RSAW) has been instituted (or reinitiated). This process includes the NERC Standards group working with the CCC's Compliance Process and Procedures Subcommittee for review and recommendations from industry personnel before RSAW are revised or put forth as final. As a reminder, NERC CCC Subcommittees are open participation and industry personnel do not need to be a CCC member to participate and attend meetings.

Guidance Updates – Policy White Paper and CIP v5 Technical Application

As outlined in NERC December CCC report, the Compliance Guidance Policy paper approved by the NERC Board of Trustees (BOT) in November was assigned to the NERC CCC and Standards Committee to complete actions in the first quarter of 2016. To complete these activities, the CCC formed a Compliance Guidance Task Force (CGTF) chaired by Scott Tomashefsky. In March, Mr. Tomashefsky reviewed the

purpose of the task force and presented the concluding deliverables for CCC approval and endorsement prior to BOT submission.

In response to the BOT assignment, the CCC created a new procedure for Board approval. CCCPP-011 is the Procedure for Entity Qualification for Implementation Guidance Submission. Mr. Tomashefsky presented the procedure for entity pre-qualification to submit implementation guidance. He noted that the CPPS needs to consider whether more detailed criteria should be added to the process. The CPPS would execute the process and bring recommendations to the CCC. There was discussion around the details of the procedure for entity pre-qualification and a proposal to revise the language. Mr. Tomashefsky presented revised language for the criteria for approval to become a pre-qualified organization. Ms. Mendonca noted that pre-qualified organizations should represent more than one entity. The CCC approved the procedure after substantial discussion.

An additional action from the Compliance Guidance Policy was to review existing documents for ERO consideration of endorsement. Thus the CGTF presented a Recommended List of Existing Documents for NERC to Endorse as Compliance Implementation Guidance to be endorsed by the CCC. Mr. Tomashefsky noted that the task force reviewed the guidance on the NERC website to determine which documents should be submitted for ERO Enterprise endorsement. There was discussion about whether Reliability Standards Audit Worksheets (RSAWs) could be considered guidance. The CCC concluded these are not guidance for endorsement but audit tools – while useful to industry also they are ERO product and should not be considered implementation guidance under the new definitions per the Compliance Guidance Policy. Mr. Tomashefsky noted that there are seven documents ready for ERO Enterprise endorsement. He noted there were seven documents that needed further work but may be submitted for ERO Enterprise endorsement in the future. The committee endorsed the first group of seven documents for ERO Enterprise endorsement consideration.

The last item delivered to the CCC for endorsement to conclude the CGTF work was a document capturing Recommendations Related to the ERO Endorsement Process. This was focused on items the CGTF believed should be part of the ERO process to address or respond to those items submitted for deference. The document was endorsed by the CCC.

Pending BOT action in May, this will conclude the CCC work for the CGTF and the participation in Compliance Guidance going forward will be limited to processing new organizations for submission of implementation guidance. This will be conducted by the CCC's CPPS and in accordance with the aforementioned procedural document.

Regional Consistency Tool Update

Carter Edge, Regional Entity Management Group, provided an update on the Regional Consistency Tool (RCT) activity which will be provided twice annually to the CCC. He presented a spreadsheet update on the RCT results and asked for comments on the usefulness of the report. Clarification questions included CIP self-certification due dates

with the FERC order to change the effective date and whether the tool addressed differences between regions or within a region. The CIP Self-certification date will change and industry communication on this should be issued soon. The RCT performs both types of consistency checks and is not meant to focus only between regions or on Multi Region Registered Entities (MRRE).

ERO Stakeholder Perception Survey Update

The ERO Monitoring Subcommittee (EROMS) provided the update on the Stakeholder Perception Survey. The historical analysis by EROMS has been posted under the CCC files on the NERC website showing the trends, statistics and comments (under related files). EROMS has been reviewing the questions to continue to improve what is requested and ensure clarity of outcomes. They continue to streamline to reduce number of questions but maintain comparison sets between years. The ERO survey will be reviewed by the NERC Member Representative Committee (MRC) in May and then will be issue to participants post review. All results for the entire surveys are part of the past NERC Board packages. The survey remains issued and reported by TalentQuest.

NERC Outreach

Marisa Hecht, NERC Compliance Assurance, provided an update on the upcoming Standards and Compliance workshop in St. Louis in July. In addition, NERC and the Regional Entities will provide outreach on standards approved by FERC in 2016 – more to come.

Future Meetings

- June 15-16, 2016: Folsom, CA (CAISO)
- September 13-14, 2016: Little Rock, AR (SPP offices)
- November 29-30, 2016: Arlington, VA (NRECA)
- 2017: TBD

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

Submitted by Eric Ervin, Chair, SPP CIPWG
March 9th, 2016

NERC CIPC Meeting

- The NERC CIPC held its quarterly meeting in Louisville, KY March 8-9, 2016.
 - Agenda, Presentations, and Minutes:
 - <http://www.nerc.com/comm/CIPC/Pages/AgendasHighlightsandMinutes.aspx>
- NERC hosted two workshops prior to the CIPC Meeting. Each were well attended.
 - CIPC Workshop (Physical Security): Physical Security Programs
 - CIPC Workshop (Cybersecurity): Malware Primer and E-ISAC Portal Training
- Opening commented by Mr. Paul Thompson, Chief Operating Officer, Louisville Gas and Electric/Kentucky Utilities.
- Mr. Marc Child, CIPC Chair, Great River Energy opened the meeting
 - Bob Canada has announced his retirement from the NERC and the E-ISAC effective April 1, 2016.
 - Next NERC CIPC Meeting will be held in St. Louis, MO June 7-9, 2016.
- Mr. Marc Sachs, Senior Vice President and Chief Security Officer, NERC/E-ISAC, provided an E-ISAC Update
 - There have been major portal improvements, including new look/feel, chat, ability to manipulate data, and increased private collaboration space. New email server separate from NERC and a new malware/device lab deployed.
 - Formal technical training program for individuals and teams now exists including a fulltime person on the NCCIC floor, and industry augmentation on the Watch floor.
 - Additional government analysis capability and new types of sensors and data collection are being deployed within the CRISP tool.
 - GridEx III Distributed Play lessons-learned and Executive Tabletop recommendations reports has been made available on the E-ISAC Portal. New daily one-page summary and an annual report now available.
- Mr. Bob Canada, NERC E-ISAC, provided a Physical Security Advisory Group Update
 - Electricity Sector Design Basis Threat. Completed NERC Legal and External Communications review; report is available on the E-ISAC portal. Tool is to be used to answer the question “What are we protecting against?” Development of potential adversary scenarios, and Identifying vulnerabilities of the PPS, among others.
 - Beyond mandatory reporting for information sharing. The E-ISAC is only as effective as the data that is shared by the industry. Encourage entities to move past the corporate fear of regulatory avoidance strategies with regard to volunteering information sharing.

- E-ISAC seeing an increase in physical security information, especially in January and February.
- Monthly and annual report are available on the E-ISAC Portal.
- Mr. Travis Moran, NERC E-ISAC, provided an update on the Enhanced Background Screening Program
 - Pre-employment background checks continue to be a concern.
 - Industry Concerns regarding hiring practices include: not a true nationwide check, not comprehensive, not universally required, differ from company to company, often conducted by HR contractors.
 - The FBI has criminal history repository via CJIS/NCIC.
 - The Nuclear Regulatory Commission has established procedures and requirements for the nuclear energy sector (10 CFR 73.57).
 - Legislation needs to be crafted by industry and tailored to industry's needs. Will require a collaboration legislative effort (industry, FBI/CJIS, DoE).
- Mr. Tobias Whitney, provided a CIP V5 Transition and CIP V5 Revisions Update
 - FERC Order No. 822 directed NERC to develop modifications to transient electronic devices, communication network components between control centers, and low-impact external routable connectivity and the effectiveness of remote access controls. Does not address supply chain management
 - Self-Cert (V5 and CIP-014)
 - Looking for quantities of assets (not cyber assets)
 - Information will support effective scope of the compliance monitoring
 - CIP-014 Self-Certs are due on 5/2
 - V5 Self-Certs are due on 7/15
- Mr. Nathan Mitchell, CIPC Vice Chair, APPA, provided a Legislative Update
 - Fixing America's Surface Transportation – FAST Act 2015
 - Provides the Secretary of Energy with the authority to address grid security emergencies. DOE should develop a plan to establish a Strategic Transformer Reserve.
 - Cyber Information Sharing Act 2015
 - DHS must certify that the automated indicator sharing (“AIS”) program is in place and running by 3/17. Sharing of Cyber Threat Indicators and Defensive Measures by the Federal Government (i.e., STIX and TAXII).
 - ESCC
 - Ukraine: DHS and E-ISAC worked together to analyze the outage and provide mitigation strategy for the industry.
 - Government-Industry Coordination Committee
 - Cyber Mutual Assistance, Playbook Working Group, Clear Path IV Exercise, Supply Chain Security, Enhanced Background Investigation Services Working Group, and DOE Transformer Reserve proposal analysis.

NERC Operating Committee

Report to the SPP Regional Entity Trustee

April 25, 2016

Jim Useldinger, South Central MCN

Activity Update

A regular meeting of the NERC Operating Committee (OC) was held on March 8-9, 2016 in Louisville, KY.

OC meeting highlights:

- **Essential Reliability Services Working Group (ERSWG)**
- **Distributed Energy Resources Task Force (DERTF)**

The OC approved the ERSWG scope, and the DERTF scope, and the ERSWG Work Plan.

The ERSWG was formed in order to advance the previous work completed by NERC's Essential Reliability Services Task Force (ERSTF) which ended in December 2015. The ERSTF developed measures to monitor, trend, and track measures for Essential Reliability Services.

The ERSWG will monitor activities of the NERC subcommittees and working groups related to ERS measures and develop the initial strategy on quantifying the Sufficiency Guidelines for the ERS measures. This work may lead to the ERSWG developing specific recommendations for practices and requirements, including reliability standards, that cover the planning, operations planning, and real-time operating procedures associated with ERS.

ERSWG Deliverables:

- Develop a Whitepaper on the methodology to develop ERS Sufficiency Guidelines – December 2016
- Develop the final report on results of the analysis for the ERS Sufficiency Guidelines – December 2017
- Utilize the data collected as part of the ERSTF analysis of measures
- Propose new data collection as needed to support development of Sufficiency Guidelines
- Complete DERTF activities and provide a final report – December 2016

The ERSWG will administer the work of the DERTF.

The DERTF was established in response to Recommendation #5 of the Essential Reliability Services Task Force Measures Framework Report – while beyond the formal scope of the ERSTF, the task force recognized that Distributed Energy Resources (DERs) will increasingly affect the net distribution load that is observed by the BPS. The ERSTF recommends coordination of NERC Reliability Standards with DER equipment standards such as IEEE 1547. With prudent planning, operating and engineering practices, and policy oriented to support reliability, DERs should be able to be reliably integrated into BPS operation.

The DERTF activities include:

- Examine existing practices for incorporating DERs in to planning models and studies

- Identify and thoroughly explain any existing operational impacts in localized areas with high penetration of non-controllable resources
- Facilitate data collection efforts and propose recommendations for improved data collection efforts in NERC
- Identify potential reliability metrics, and recommend as needed, with regards to DERs
- Provide a recommendation for consistently modeling and assessing the reliability and/or operational impact of DERs in NERC's Long-Term Reliability Assessment (LTRA) and other assessments
- Review existing NERC Reliability Standards and coordinate with IEEE 1547 related efforts
- Review the NERC Functional Model against the definitions for Behind the Meter Generation, Distributed Generation, and other related terms to provide clear distinctions between each category and or treatment within NERC
- Consider the development of a Reliability Guideline and/or SAR that provides recommended requirements Distribution Providers should consider for their DER-type interconnections

- **Balancing Authority ACE Limit (BAAL) Compliance (CPS1, CPS2, and DCS) Reports**

The Reliability Subcommittee reported that BAL-001-2 (Real Power Balancing Control Performance) becomes effective on July 1, 2016 and that Requirement 2 of the new reliability standard states: *Each Balancing Authority shall operate such that its clock-minute average of Reporting ACE does not exceed its clock-minute Balancing Authority ACE Limit (BAAL) for more than 30 consecutive clock-minutes, calculated in accordance with Attachment 2, for the applicable interconnection in which the Balancing Authority operates.* Furthermore, Measure M2 states: *Each Balancing Authority shall provide evidence, upon request, such as dated calculation output from spreadsheets, system logs, software programs, or other evidence (either in hard copy or electronic format) to demonstrate compliance with Requirement R2.*

The RS scope includes reviewing BA control performances (i.e. CPS and DCS) on a periodic basis and to address technical issues related to automatic generation control, time error correction, operating reserve and frequency response. The RS needs continued access to compliance data to fulfill the responsibilities outline in its scope. While the Standard may not require the submission of data on a regular basis, a Section 1600 data request could be developed. The Regional Entities could be asked to collect the requested data on a voluntary basis. The OC Chair will send a letter to the BAs to submit BAL compliance data (e.g. CPS1, CPS2, DCS and BAAL) on a voluntary basis.

- **Retirement of BAL-004 (Time Error Correction)**

The OC approved a motion to task the Reliability Subcommittee and Operating Reliability Subcommittee to work together to develop a reliability guideline or procedure to implement time error correction when BAL-004 is retired.

While the industry has overwhelmingly supported the retirement of BAL-004 as a reliability standard, commenters were evenly split on whether the practice of time error correction (TEC) should continue in some other form. The retirement of BAL-004 along with the retirement of its companion NAESB business practice will likely result in a drift in average frequency and time error. A proposed new procedure could consider changes that could reduce the number and impact of TECs that include:

1. Widen the TEC window to +/- 30 seconds similar to Europe
2. Clock-day TECs with a smaller +/- 0.01 Hz offset similar to Europe
3. Evaluate implementing payback approach used in NERC prior to 2000 the helped manage inadvertent balances and also reduced the number of TECs

- **NERC Action Plan to Address Frequency Response and FERC Notice of Inquiry (Primary Frequency Response)**
 Upcoming advancements include the FERC Notice of Inquiry on Primary Frequency Response, the monitoring of the four ERS frequency response measures, NERC assessment on variable energy resources in the Eastern Interconnection and the ERSWG development of sufficiency guidelines. The NERC initiative contains the following internal programs:

 1. Frequency Response Annual Analysis
 2. Regulatory actions (e.g. an industry stakeholder group is developing comments on the FERC NOI)
 3. NERC issued an Advisory Alert on governor response in January 2015
 4. Implementation of BAL-003-1 continues to be a work in progress. The BA Submittal Site (BASS) has been set up for BAs to submit their data
 5. New measures to be included and considered for the 2016 State of Reliability report
 6. The Long-Term Reliability Assessment indicates an upward trend in asynchronous resources and retirements of conventional generation, potentially decreasing the overall system inertia and frequency response capability
 7. The ERSWG has four measures relative to frequency for balancing authorities and interconnections
 8. The Resources Subcommittee and the Operating Committee developed a guideline for generator owners on governor response and DCS control strategies for thermal plants

- **Archive the *Interconnected Operations Services Reference Document – OC approved document March 2002***
 The OC approved archiving this reference document based on the content being superseded by the work of the Integration of Variable Generation Task Force and the ERS Task Force.

- **Archive the *Available Transfer Capability Definitions and Determination Reference Document – OC approved document June 1996***
 The OC approved archiving this reference document based on the content being superseded by the development of the MOD reliability standards and FERC Orders.

- **Functional Model Advisory Group Report**
 The purpose of the FM is to provide a framework for the development of reliability standards and to describe each function and relationships between entities responsible for performing tasks required for each function. The FMWG purpose is to maintain the FM to ensure it correctly reflects the industry and to evaluate and incorporate new and emergent reliability-related tasks. The FMWG reports to the Standards Committee and advises and consults with the Planning, the Operating and the Critical Infrastructure Protection Committees. The FMWG Project for 2016 will review recent NERC initiatives and standard development projects to identify any changes or updates to the FM language.

- **NERC Standards Development Projects**
 An update on one NERC Standard Development Project was presented:

 - Project 2007-06.2 – Phase 2 of System Protection Coordination – addresses FERC directives and the requirements of PRC-001-1.1. The drafting team proposes the development of a new reliability standard, PER-006-1, which would be applicable to Generator Operators that have “plant personnel who are responsible for the real-time control of a generator and receive direction from the Generator Operator’s Reliability Coordinator, Balancing Authority, Transmission Operator, or centrally located dispatch center.”

- **Committee and Subcommittee Items**

 - Operating Reliability Subcommittee (ORS)
 - On February 1, 2016 the PJM Reliability Coordinator became the Eastern Interconnection time monitor and the Geomagnetic Disturbance

- Ongoing work with the IDC Tools Association on the Parallel Flow Visualization project
- Resources Subcommittee (RS)
 - Support the BAL-003-1 implementation
 - The Regional Entity Inadvertent Survey determined there is 47236 MWhr On-Peak and -99131 MWhr Off-Peak for a total of -51895 MWhr of accumulated inadvertent. The RC approved a motion to create a pseudo BA with equal and opposite values to record the imbalance. The OC suggested that the RS reconsider the options to reducing or eliminating the balances.
- Event Analysis Subcommittee (EAS)
 - No Lessons Learned posted since the last OC meeting
 - Trends Working Group is beginning an effort to review all previous Lessons Learned to identify event patterns or trends.
 - EAS is working with the NATF to develop a joint Lessons Learned.
- Personnel Subcommittee (PS)
 - Continuing to review and approve Continuing Education courses and approve Continuing Education Providers
 - Developing Reliability Guideline for Situational Awareness, draft expected at June OC meeting.

Next Meeting

The next meeting of the Operating Committee will be on June 7-8, 2016 in St. Louis, Missouri.