



**Southwest Power Pool
REGIONAL ENTITY TRUSTEES MEETING**

July 28, 2014

**Embassy Suites Omaha-Downtown/Old Market
Omaha, Nebraska**

A G E N D A

8:00 a.m. – 12:00 p.m.

1. Call to Order/Introductions John Meyer
2. Antitrust Guidelines Emily Pennel
3. Approval of Meeting Minutes – June 17, 2014 John Meyer
4. Long Term Reliability Assessment Lanny Nickell
Action Requested: SPP RE Trustees accept LTRA
5. 2Q Events Report and Facility Ratings Alert Update Alan Wahlstrom
6. Discussion: Extending Trustee Meeting Length in 2015.....Ron Ciesiel
7. NERC Operating Committee Report..... Jim Usledinger
8. State of Reliability Report..... Mike Hughes
9. CIP Update..... Kevin Perry
10. Enforcement ReportJoe Gertsch
11. General Manager's & Compliance ReportRon Ciesiel
12. Outreach Activity Emily Pennel
13. Year-to-Date Financial Statement.....Debbie Currie
14. Staff Goals and MetricsRon Ciesiel
15. NERC Committee Representative Written Reports - Comments or Questions
 - 15a. Planning Committee Noman Williams
 - 15b. Compliance and Certification Committee Jennifer Flandermeyer
 - 15c. Critical Infrastructure Protection Committee Robert McClanahan
 - 15d. System Protection and Control Lynn Schroeder



16. New Action Items Emily Pennel

17. Future Meetings John Meyer

- October 28, 2014 - Little Rock
- January 26, 2015 - Dallas
- April 27, 2015 - Tulsa
- July 27, 2015 - Kansas City
- October 26, 2015 - 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.



Southwest Power Pool
REGIONAL ENTITY TRUSTEES MEETING

June 17, 2014

SPP Corporate Center
Little Rock, Arkansas

A G E N D A

8:00 a.m. – 12:00 p.m.

1. **Call to Order/Introductions** John Meyer
John Meyer called the meeting to order at 8:02 a.m. and welcomed the attendees.
2. **Antitrust Guidelines** Emily Pennel
Emily Pennel reminded the group to speak up if the meeting falls outside the Antitrust guidelines.
3. **Approval of Meeting Minutes - April 28, 2014** John Meyer
The Trustees approved the minutes with no discussion.
4. **SPP RE 2015 Business Plan & Budget**Debbie Currie
The 2015 \$11.8 million operating budget reflects an approximate \$16,000 decrease or -0.1% from the 2014 budget. SPP RE's funding is provided through assessments to Load Serving Entities or designees (mandatory in the U.S.). Funding assessments increased by \$481,000 or 5%, from \$9.2 million to \$9.7 million. A partial reduction of the SPP RE cash position will be used to offset the increase in the 2015 funding assessment. We target a zero balance by the end of the year.

The net decrease in budgeted FTEs is 1.10, reflecting the elimination of a full-time enforcement case manager and a reduction in the number of SPP shared staff who help coordinate the development of regional reliability standards. Other FTE changes are primarily due to reallocation of existing staff.

Compared to the 2014 budget, the net increase in direct expenses is ~\$241,000 and the net decrease in SPP, Inc. indirect expenses is ~\$257,000. The increase in direct expenses is primarily due to travel and consultant costs, including an Engineering Data Validation tool for use in the annual NERC reliability assessments. The decrease in SPP, Inc. indirect expenses is due to a decrease in the overhead rate that SPP, Inc. charges to the RE.

SPP RE and the other REs do not project penalty revenues; penalty revenues have been running about half a million dollars for the past several years. We do not count on penalty monies to achieve our revenue.

2015-2014 Budget Comparison Overview

Resource Item	Approved 2014	Preliminary 2015	Increase / (Decrease)	% Increase / (Decrease)
SPP RE Direct FTEs	30.00	29.00	(1.0)	(3%)
SPP Shared FTEs	3.85	3.75	(0.10)	(3%)
Total FTEs	33.85	32.75	(1.15)	(3%)
Direct Expenses (millions)	\$7.0	\$7.2	\$241k	3%
SPP, Inc. Indirect Expenses (millions)	\$4.8	\$4.6	(\$257k)	(5%)
Total Expenses (millions)	\$11.8	\$11.8	(\$16k)	(0%)
Total Funding Requirement (millions)	\$9.7	\$10.1	\$418k	4%
RE Assessments (millions)	\$9.2	\$9.7	\$481k	5%

We have an 18 month budget cycle. The SPP RE Trustees approve the budget in June, and the budget runs from January 1 to Dec. 31, 2015. The budget will be submitted to NERC in July 2014 and to FERC in August.

The Trustees approved the SPP RE 2015 Business Plan & Budget, subject to adjustment for violation penalty payments received prior to July 1, 2014, plus other non-substantive changes required for filing with NERC.

- General Manager’s Report**Ron Ciesiel
 With the wrap-up of the Reliability Assurance Initiative (RAI) pilot programs, the Regional Entities are waiting for the final report and directions on two main issues. First is scoping an oversight engagement for individual Registered Entities. The goal of the RAI project is to close the gap between the “one-size-fits-all” program of today to a more risk-informed customized program. Second will be a formal program for the REs to assess Registered Entities’ internal control programs. This process will allow the REs to customize approaches to compliance oversight for specific Registered Entities. Many RAI details are still under consideration and will be rolled out to the REs in 2Q and 3Q 2014 for implementation in 2015.

Upgrades to webCDMS should be completed around Labor Day, which will allow SPP RE to implement the Compliance Exception category to its decision making toolkit. A Compliance Exception will be a very minor infraction that the RE does not believe merits enforcement action and will be ‘off ramped’ at the RE, catalogued, trended, and bulk uploaded to NERC on a periodic basis. The ultimate goal is for entities to be able to keep compliance exceptions in-house with regular uploads to SPP RE.

The revised BES definition effective date is July 1, 2014. The ERO-wide software tool, BESnet, is open for user registration; entities can begin submitting exceptions on July 1. NERC and SPP RE have been providing training. Registered Entities should be reviewing and preparing any self-determined lists as part of their initial submission.



In conjunction with the rollout of the revised BES definition, NERC has begun an initiative to revamp the entity registration criteria. This “risk-based registration” may include the elimination of certain registered functions, raising the threshold requirements for others, and changing performance requirements for tiered functions in the registry.

The CIP V3 to V5 pilot project is wrapped up and the results will be used to help guide SPP RE, RTO, and Registered Entities as we transition from V3 to V5. NERC is finalizing a transition guidance document that includes instructions on how to deal with issues surrounding the now defunct Version 4, oversight activities for small entities, and other issues. The expected publication date is July 1, 2014.

FERC ordered NERC to fast track a Physical Security Standard, CIP-014, for completion in 2014 and implementation in 2015. The new standard has been approved by the NERC ballot body and is being submitted to FERC for final approval. SPP RE will not act as the third-party reviewer as indicated in the standard; SPP RTO is discussing whether the RTO would be qualified and unaffiliated enough to provide the review.

The Trustees congratulated staff for some recent professional achievements and certifications.

- 6. **Enforcement Report**.....Joe Gertsch
Through May 31, SPP RE has had 46 incoming violations, compared to 90 at this time last year. We have processed 56 violations YTD. Of this year’s violations, 24 are in Ops/Planning and 22 are CIP; 17 were Self-Reported and 16 were Self-Certified; and 27 were Find, Fix, Track. This year’s violations are 72% self-identified.

The current caseload is 176 violations, which should take under 12 months to process. Of these, 67 are Ops/Planning and 109 are CIP; 30 are on administrative hold; 32 are High Impact; and 74 do not have a mitigation plan.

- 7. **Staff Goals and Metrics YTD**Ron Ciesiel
SPP RE staff is on track with the 2014 performance goals and metrics.

- 8. **Financial Statement YTD**.....Debbie Currie
We are underrunning the budget in most categories, primarily due to open positions.

- 9. **Outreach Report** Emily Pennel
Feedback from the CIP workshop was very good; it was attended by 172 stakeholders in-person and via webinar. The Fall Workshop will be Sept. 30-Oct. 1 in Oklahoma City.

- 10. **New Action Items** Emily Pennel
There were no new action items.

- 11. **Upcoming Meetings**..... John Meyer

John Meyer suggested we hold next year’s budget meeting as a net conference unless there are major budget issues that need to be addressed.

July 28, 2014, Omaha
October 27, 2014 - Little Rock

John Meyer adjourned the meeting at 10:30 am.

REGIONAL ENTITY TRUSTEE MEETING

June 17, 2014

ATTENDANCE LIST

NAME	ORGANIZATION
Emily Pennel	SPP RE
Sheila Scott	SPP RE
Joe Gertsch	SPP RE
Debbie Currie	SPP RE
Kevin Perry	SPP RE
BRETT HOLLAND	KCPCL
Ellen Fairchild	KCPCL
SUSAN BARTLETT	KCPCL
Alan Kloster	KCPCL
CHARLES KING	KCPCL
John Rhea	OG&E
Jennifer Flandermeyer	KCPCL
Dan Gibson	KCPCL
GERRY BURROWS	SPP RE
John Meyer	TRUSTEE
Steven Keller	SPP RE
SHON AUSTIN	SPP RE
Andrea Doucette	SPP RE
Bo Jones	Westar (teleconference)
Barry Warren	Empire District (teleconf)

2014 Long-Term Reliability Assessment

July 28, 2014

Chris Haley
chaley@spp.org · 501.614.3583



Assessment Staff

- **Chris Haley, Engineer Associate III (RTO)**
- **Alan Wahlstrom, Lead Engineer (SPP RE)**

Long Term Reliability Assessment

- **Widely-read continent-wide publication**
- **Projected 10-year long-term outlook (2015-2024)**
- **Primary objectives:**
 - **Qualitative outlook of region's reliability**
 - **Make recommendations for mitigations/actions as needed**

Long Term Reliability Assessment

- Provides high-level overview for SPP Planning Coordinator assessment area
 - Demand growth
 - Capacity adequacy
 - Operational reliability
- Does not include Integrated System, CLECO, LAFA, or LEPA
- Includes Nebraska

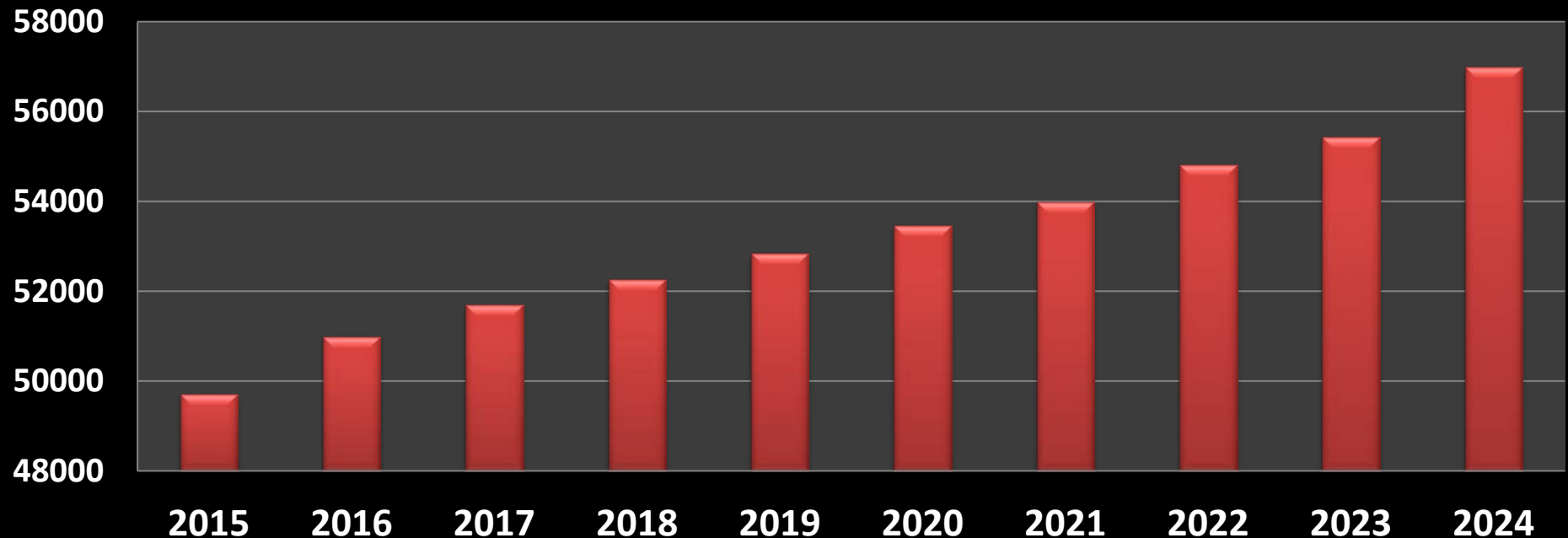
Assessment Process

- **Created with data/information submitted by SPP Reporting Entities**
- **SPP staff validates and cross-checks data to verify consistency**
- **SPP staff and stakeholders have the opportunity to provide input**
- **Assessment undergoes peer review process at NERC prior to finalization**

Coincident Peak Demand

- ~49,710 MW projected 2015 Total Internal Demand
- ~56,990 MW projected 2024 Total Internal Demand
- Modest load growth projected over next 10 years

Total Internal Demand



Demand Response and Energy Efficiency

- Forecast modest average annual growth of ~3.5% in Energy Efficiency and DR programs through 2024
- DR programs are voluntary and are primarily targeted for summer peak load reduction use
- Members include their own DR and Energy Efficiency programs as reductions in their load forecasts

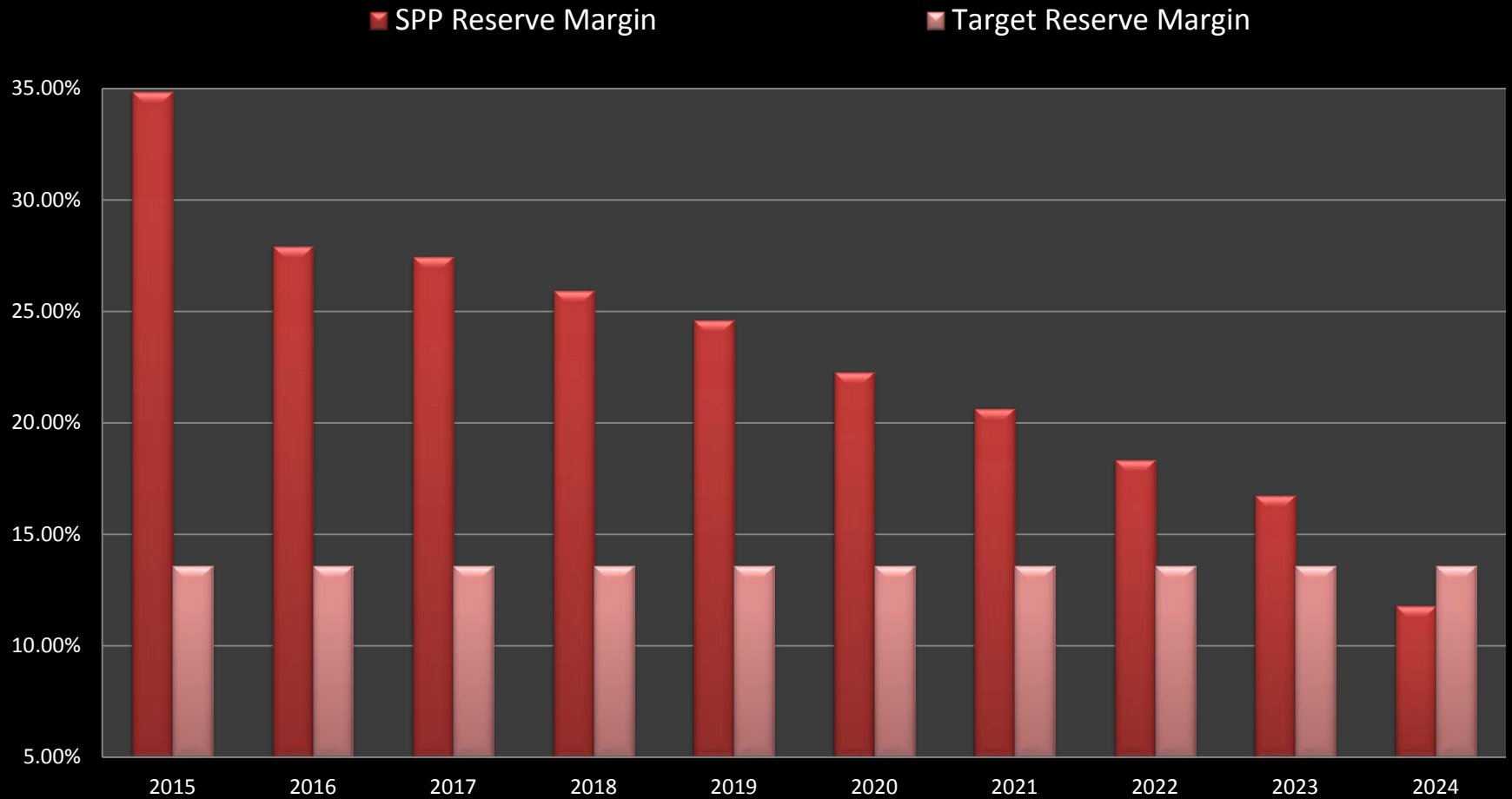
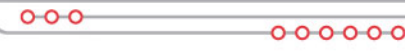
Generation

- **~ 3,150 MW nameplate generation expected to be retired 2014-2024**
 - **Do not expect any reliability issues**
- **~7,500 MW of new nameplate “Tier 1” generation projected coming into service 2015-2024**
 - **Coal (75 MW)**
 - **Natural Gas (1058 MW)**
 - **Biomass (6 MW)**
 - **Solar (10 MW)**
 - **Wind (6261 MW)**
 - **Nuclear (67 MW)**

Available Capacity

- **~65,500 MWs Existing Certain Capacity in 2015**
- **~62,400 MWs Existing Certain Capacity in 2024**
 - **Includes Existing Certain generation available**
 - **Reserve margin based on expected Existing Certain generation and Net Firm Transfers**
 - **Decrease in capacity due to retirements**

Available Capacity Reserve Margin

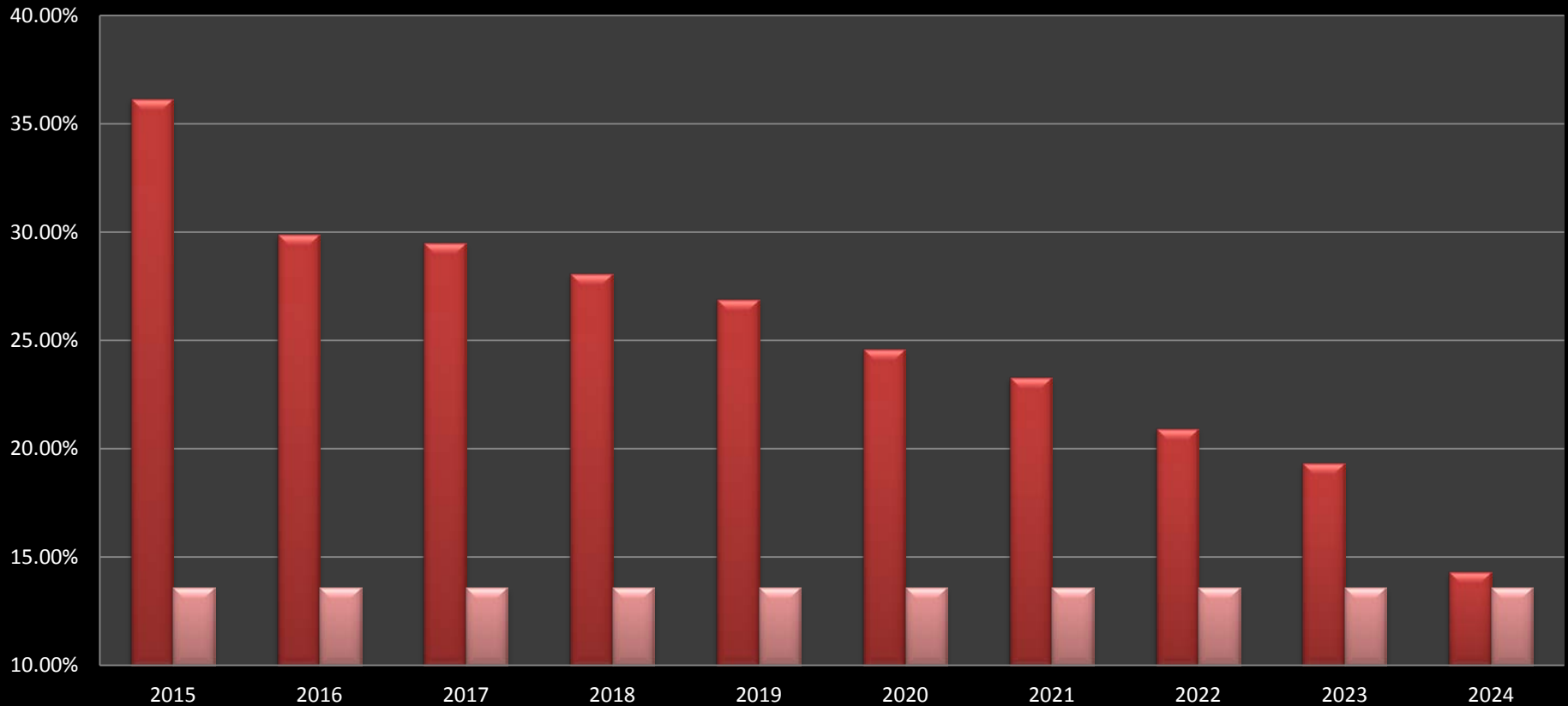


Anticipated Capacity

- **~66,000 MWs Anticipated Capacity in 2015**
- **~63,650 MWs Anticipated Capacity in 2024**
 - **Includes Existing Certain and Planned “Tier 1” anticipated capacity**
 - **Reserve margin based on expected Existing Certain, Net Firm Transfers, and Planned “Tier 1” anticipated capacity**

Anticipated Capacity Reserve Margin

■ SPP Reserve Margin ■ Target Reserve Margin



Reserve Margins

- **Reserve margins are adequate**
 - **SPP members required to maintain 12% capacity margin, which translates to a 13.6% reserve margin**
 - **Forecasted anticipated reserve margin is ~36% in 2015, decreasing to ~14.5% in 2024**
- **Reliability issues not expected**

Capacity Margin Task Force

- **SPP has initiated the formation of a Capacity Margin Task Force (CMTF), which is comprised of SPP Members and Staff. The primary task of the CMTF is to improve the SPP Capacity Margin construct in order to meet Member's expectations while maintaining reliability.**

Capacity Adequacy Study *

- **SPP bi-annual study process**
 - **Four-year look ahead for reliability issues**
 - **Weekly snapshots through the four years**
 - **Scheduled outages taken into account**
- **Current studies indicate there will be adequate time to perform generator retrofits necessary to comply with known environmental regulations**
 - **Retrofits are expected to impact generation supply economics more than the ability to reliably serve load**

* Formerly called “EPA Study”

Transmission

- **~3,500 miles 100+ kV expected over 10-year assessment period**
- **Particular emphasis on western part of grid due to influx of renewable generation and localized load growth**





Gas Electric Coordination Task Force

- **Created January 2013 to oversee activities between the Gas and Electric Industry in the SPP Region**
- **Weather Operational Plan created for communication between major gas suppliers and SPP Operations**



Emerging Reliability Issues

- **Currently managing reliability concerns regarding exchange of energy between MISO Central/North and MISO South**

Long-Term Reliability Issues

- **High-Priority Incremental Load Study showed load growth due to oil and gas drilling**
 - **Substantial load growth concentrated in TX and NM**
 - **Localized growth has created need for new transmission and generation in specific areas**
 - **Working with stakeholders to ensure reliability needs are being addressed**

Long-Term Reliability Issues

- **Coal delivery delays due to railroad congestion could potentially reduce fuel supplies**
- **Drought and flooding conditions continue to be concerns**
 - **Current drought conditions in the western portion of region are projected to continue ***
 - **2015 Integrated Transmission Planning 10 study includes a future scenario with a decreased baseload capacity in which units susceptible to drought are de-rated**

* [U.S. Drought Monitor](#)

Long-Term Reliability Issues

- **Wind will continue to cause operational challenges**
 - **During off-peak periods, there may be higher wind output with not enough transmission to handle the increased output**
 - **2015 ITP 10 study is assessing its members' renewable portfolio standards and modeling the SPP Assessment Area to account for these mandates and goals**

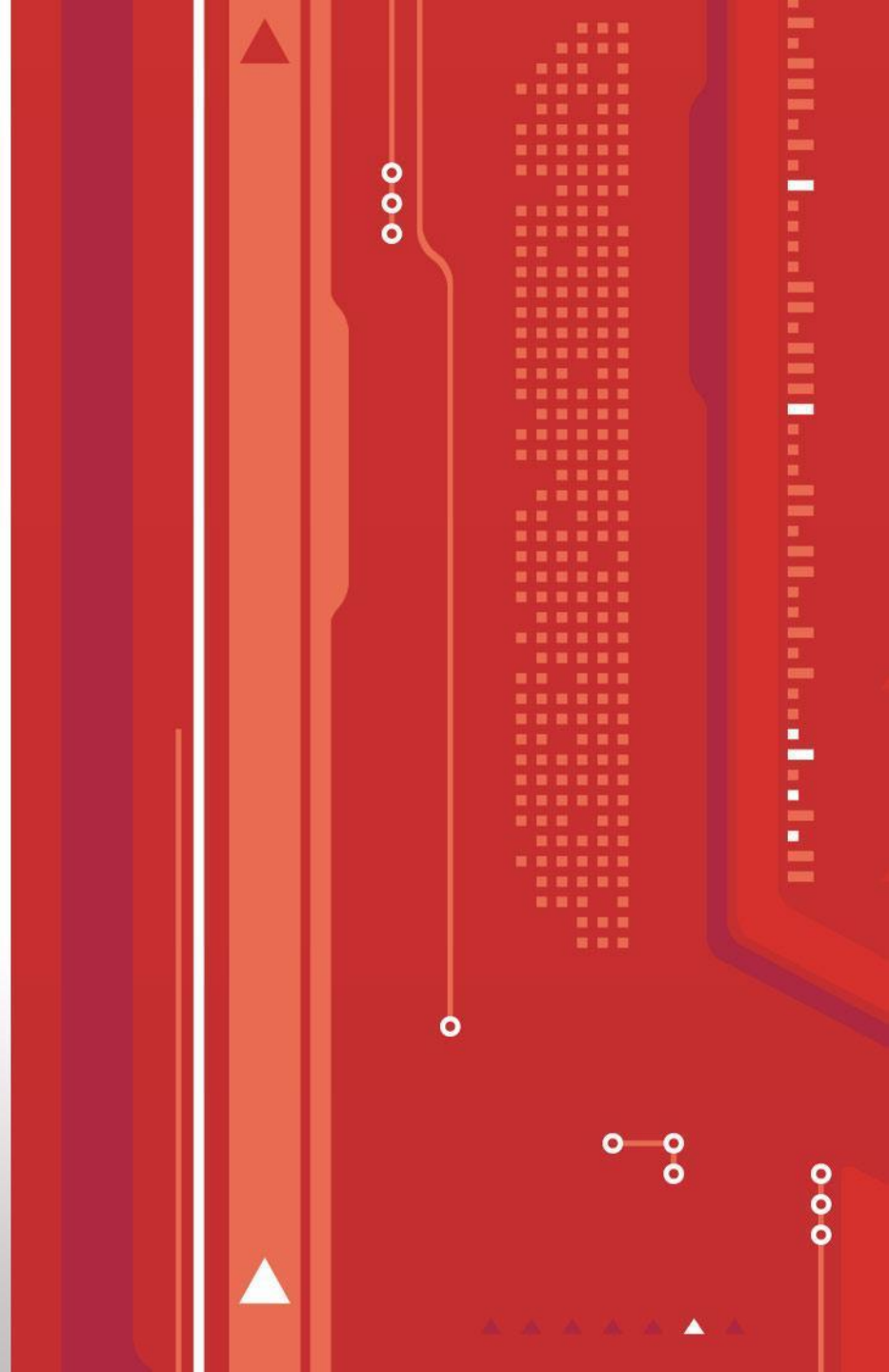
Summary

- **Generation fleet is diverse in terms of location, fuel type, and capability**
- **SPP reporting area shows modest load growth, sufficient resources, and adequate reserve margins for 2015-2024 assessment period**
- **Long-term challenges include integration of variable generation**

2014 Event Report

Alan Wahlstrom
Lead Engineer

April 28, 2014

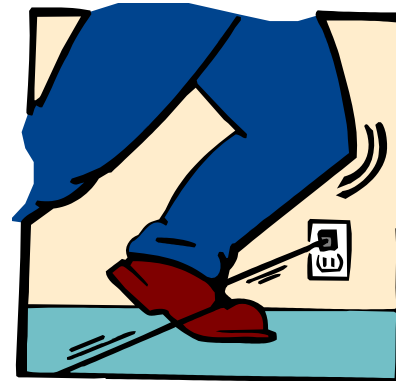


SPP Events for 2014

- **16 total events, 8 Category 1 Events analyzed via NERC's Event Analysis process**

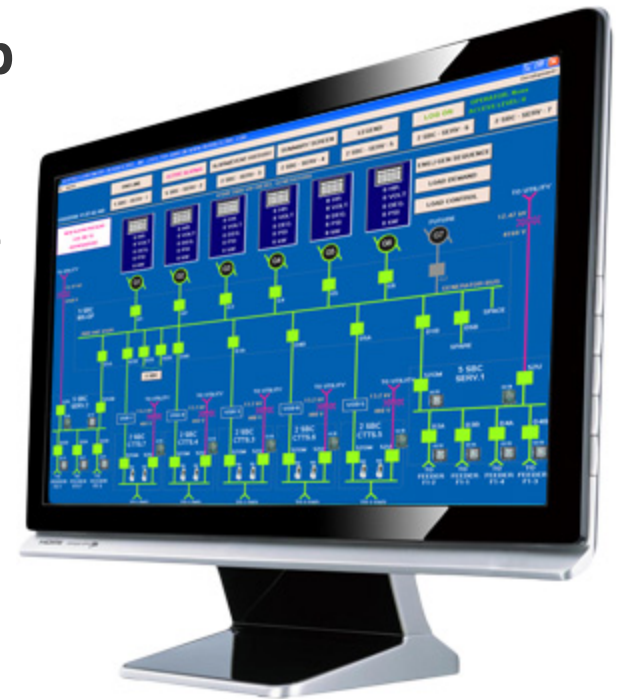
SPP Regional Events (April 1st – June 30th)

- 1 Category 1h. Events. Loss of monitoring or control at a control center.
- 2 Category 1f. Events. Unplanned evacuation from a control center facility



Loss of SCADA

- **Human Error**
 - Telecommunications technician accidentally cutting the power cab bridging amplifiers temporarily.
 - Twenty Three RTU's out of service
 - System out for two hours



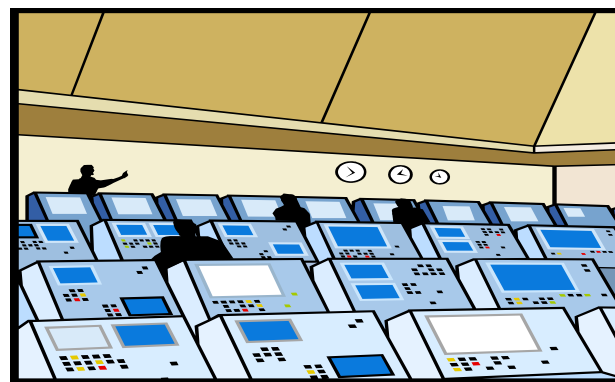
Unplanned Evacuation of Primary Control Center

- Utility experienced an unplanned evacuation of its Primary Control Center facilities due to a fire alarm.
 - Primary Control center was evacuated for 53 min
 - Sensor failed



Unplanned Evacuation of Primary Control Center

- **Chemical Spill occurred in railroad yard across the road from Control Center**
 - **System operations was initiated at backup control center within 25 min.**
 - **Operations at Primary control center resumed approximately 11 hours later.**



NERC LESSONS LEARNED

High AC Voltage Can Lead to Remote Terminal Unit (RTU) Failures LL20140501

- Moderately high ac voltage for a prolonged period or very high ac voltage for a short duration can cause the metal oxide varistors (MOVs) on the control card to break down.
- **Corrective actions**
 - One solution is to apply high voltage protection (i.e., MOVs) on the ac circuits connected to the control boards, external to the RTU



High AC Voltage Can Lead to Remote Terminal Unit (RTU) Failures LL20140501

- Another solution is to use an external interpose relay for all ac control switching to eliminate any ac on the RTU control output board
- Lesson Learned
 - If an entity employs a station RTU to switch ac voltages via the RTU control functionality, the entity should consider researching the effects that high ac voltage may have on the RTU control.

Circuit Breaker Modification Leads to Inadvertent Trips LL20140502

- Sulfur hexafluoride (SF6) gas circuit breaker controls were field modified to trip on low gas and air pressure.
 - Utility reconfigured the breaker to trip on falling SF6 gas pressure.
 - DC source removed then reapplied caused the breaker to trip.

Circuit Breaker Modification Leads to Inadvertent Trips LL20140502

- Lesson Learned
 - When making changes to original factory equipment schemes, entities should analyze the scheme change to ensure that the removal/restoration of DC power to the scheme does not cause an undesirable operation.



Improved Contractor Oversight Needed

LL20140503

- Vendor performed work in stations without a verification method in place caused significant system disturbances.
- Contractor failed to install insulating sleeves on CT circuit which led to an outage of a startup transformer



Generation Relaying – Underfrequency Protection Coordination LL20140601

- System frequency dipped below the auxiliary equipment relay frequency protection setting at a generating plant, causing auxiliary equipment to trip.
- A frequency protective relay scheme was installed on a generating plant's auxiliary equipment.



Generation Relaying – Underfrequency Protection Coordination LL20140601

- Feeders' underfrequency protection scheme was set to trip auxiliary equipment if the frequency was 59.5 Hz or less for two seconds.
- Lessons Learned
 - Unintended generator tripping during an underfrequency event can exacerbate the condition.

Loss of SCADA Due to Memory Resources Being Fully Utilized LL20140604

- **An Entity experienced a loss of Supervisory Control and Data Acquisition (SCADA) due to the memory resources on the primary SCADA communications server being overwhelmed.**
- **An SSH session repeatedly initiated commands. A discrepancy in the EMS host-naming convention used on a LINUX host file caused the memory resources to exceed their maximum capacity.**

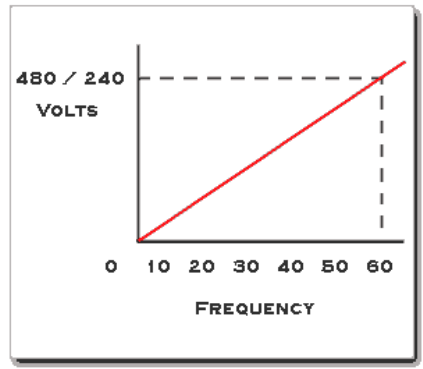
Loss of SCADA Due to Memory Resources Being Fully Utilized LL20140604

- **Lessons Learned**
 - **The SCADA host resources should include monitoring and alarming of crucial events and server resources so that users are aware of any possible problems and can then prevent incidents such as loss of SCADA system functionality.**



Generation Relaying – Overexcitation LL20140602

- A newly installed volts/hertz (V/Hz) protective relay tripped a generator.
- The new relay settings were incorrectly based on the settings of the existing protection and were not coordinated with the generator’s overexcitation V/Hz limiter in its excitation control.



Generation Relaying – Overexcitation

LL20140602

- **Lessons Learned**
 - **When generator relays are being replaced with new technology digital relays, it should not be assumed that basing the new relay settings on the existing protection's set points is the best practice.**

Verify That Actions Called for in Operating Guides Can Be Implemented Within Required Time Frames LL20140603



- **Operating Guides contained time requirements that did not properly consider the ability of Operating Personnel to complete a task.**
 - **A registered entity required that actions be taken within 30 minutes to protect local generation, but time required takes longer than 30 min.**

Verify That Actions Called for in Operating Guides Can Be Implemented Within Required Time Frames LL20140603

- **Lessons Learned**
 - In the development of operating plans or procedures, organizations must consider if such actions are accomplishable within required time frames.

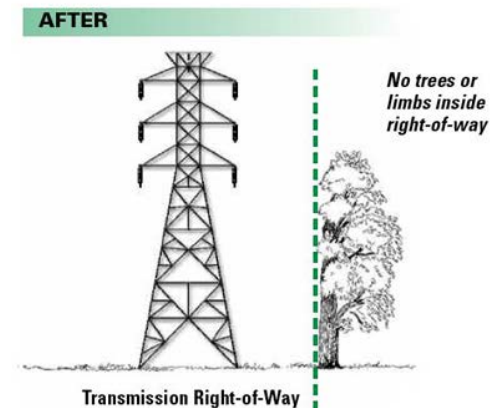
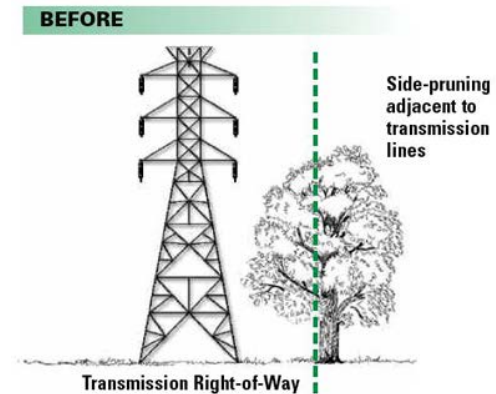
FAC Alert July 15th 2014

- SPPRE Discrepancies

High Priority approximately 420

Medium Priority approximately 1980

Low Priority approximately 4050



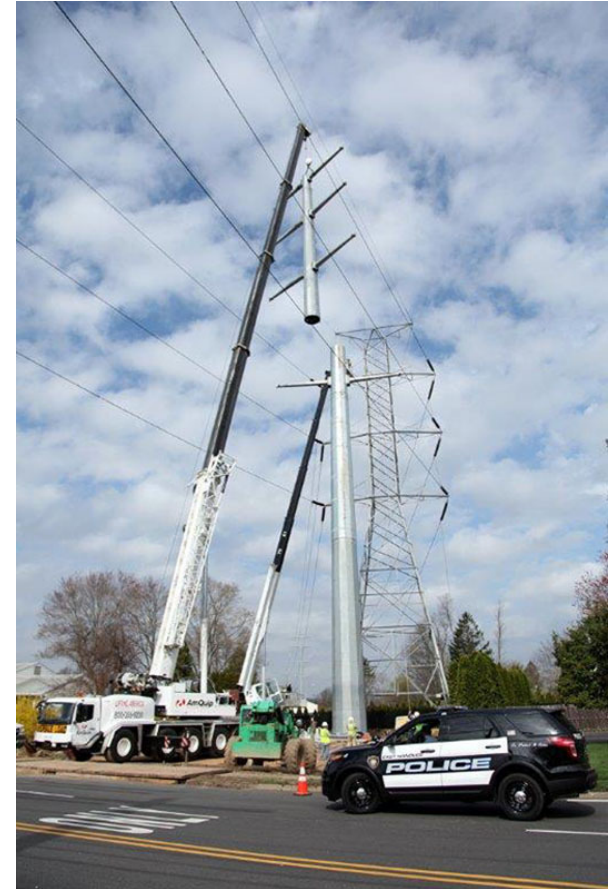
FAC Alert July 15th 2014

- Remediation

100 % of the High priority lines are complete

68% of the Medium priority lines are complete

66% of the Low priority lines are 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>



**Southwest Power Pool Regional Entity
Recommendation to the SPP RE Trustees**

July 28, 2014

Extend Meeting Length in 2015

In the last few years, the SPP RE Trustees meetings have grown in both attendance and breadth of topics covered. The Trustees meetings typically do not cover multiple action items; instead, they are primarily opportunities for staff, stakeholders, and Trustees to discuss important reliability matters. The meetings usually include:

- Staff updates from enforcement, compliance, outreach, event analysis, CIP, and General Manager
- Reports from SPP RE's representatives on NERC committees
- NERC Reliability Assessments and State of Reliability Reports
- Current and emerging topics such as regional standards, annual implementation plans, Reliability Assurance Initiatives, physical and cyber security updates, etc.
- Staff performance metrics, year-end reports, and annual stakeholder survey results
- Financials/budget reports

Several stakeholders have said that the 8:00 a.m. to noon meeting length does not allow adequate time to discuss these topics in depth. If an attendee realizes time is running out, s/he may choose not to ask a question or raise an issue that could have been a good discussion point. Also, staff would like to add a regular update from the Operations and Planning team along with the other staff updates.

SPP RE Trustees meetings were previously held from 8:00 a.m. until 2:00 or 3:00 p.m. the day after the Board meetings. To increase attendance, the meetings were moved to the day before the Board meetings. Since the Regional State Committee also meets the day prior to the Board at 1:00 p.m., the Trustees meetings were truncated to 12:00 p.m.

If we extend the meeting length to mid-afternoon, action items and the most important topics would be put first on the agenda. If some attendees choose to leave the Trustees meeting for the RSC, they would miss the least significant agenda items.

For meetings held at the SPP Corporate Center, the Trustees meetings would either have to end at noon or be held in a smaller conference room.

Recommendation

If stakeholders generally agree, SPP RE recommends that the SPP RE Trustees extend the meeting length for off-site 2015 meetings.

SPP Regional Trustee Update

July, 2014

NERC Operating Committee
Meeting
June 2014

Jim Useldinger

jim.useldinger@kcpl.com

816-654-1212

Revised Reliability Plans

- MAY 2014 - ORS endorsed SERC and MISO plans
- State regulatory commissions of WI & MI have opened proceedings related to the proposed Local Balancing Authority split identified in MISO plan
- NERC has received inquiries from MI communicating concerns of potential issues associated with LBA in Upper MI area
- NERC was gathering info and hoped to resolve soon based on MISO's modeling needs

Balancing Authority ACE Limit (BAAL) Field Trial

- Ongoing BAAL field trial since 2005
- Conclusions to date:
 - BAAL requirement focuses on frequency control for the Interconnection
 - Correlation between CPS1 and BAAL always drives corrective actions to support frequency
 - BAAL is a proportional allocation of responsibility across all BA;s
 - DT believes BAAL time duration of 30 consecutive clock minutes has proven to be appropriate
- DT recommended continuation of the field trial until reliability standard BAL-001-2 becomes effective

Reliability Guideline: Generating Unit Operations during Complete Loss of Communications

- RS drafted the guideline to provide a strategy for power plant operations in the case of complete loss of communications (both data and voice) between on-site generating unit operator and the System Operator
- Each BA needs to work with its generators to determine how they will act under frequency excursions
- OC approved the guideline and asked the RS to consider several comments addressing additional areas related to: reactive power schedules, transmission system reliability, regional operating criteria

Essential Reliability Services

- New joint TF (PC & OC) created in response to a recommendation from NERC's LTRA to develop a primer on essential reliability services
- TF developing a tutorial that identifies each essential reliability service and discusses the importance of those services to the operational requirements needed to ensure bulk power system reliability
- Educate and inform industry leadership, regulators, policy makers
- Develop an approach for tracking and trending ERS

Event Analysis – Lessons Learned

- Improved Contractor Oversight – Westar
 - Inadequate handling of emergent work
 - Unclear responsibilities and monitoring of contractor work practices
- Hydro Quebec Event
 - Operations review of maintenance outage procedures
 - Operational communication/follow-up of outage requests
 - Maintenance outage impacts on system reliability
 - Communications with neighboring system operators
- Hydro One Event
 - Sealing watertight cable penetrations and window wells at substation control houses
 - Review of SE operation for massive loss of telemetry
 - Loss of computer and network systems impact on ability to operate, monitor, assess the power system

Subcommittee Activities

- OC approved revised scopes of:
 - Personnel Subcommittee
 - Event Analysis Subcommittee
 - Resources Subcommittee
 - Operating Reliability Subcommittee
- OC approved decommissioning the Interchanges Subcommittee
 - RS and ORS included IS related functions in their revised scopes

EMS Working Group

- Reports to the Event Analysis Subcommittee
- Scope – analyze events that affect monitoring, control & situation awareness of the BES. Communicate with industry lessons learned
- MAY 29 meeting
 - Latest trend in EMS related event reporting -
 - More 1h events being reported now and 2b events trending lower
 - Every 2b event is in fact a 1h event as well
 - Continue to monitor since new category went into effect only in OCT, 2013
 - 3 new lessons learned approved for posting
 - 2nd annual Monitoring and Situational Awareness Conference
 - SEPT 23-24, PJM

2014 State of Reliability Report

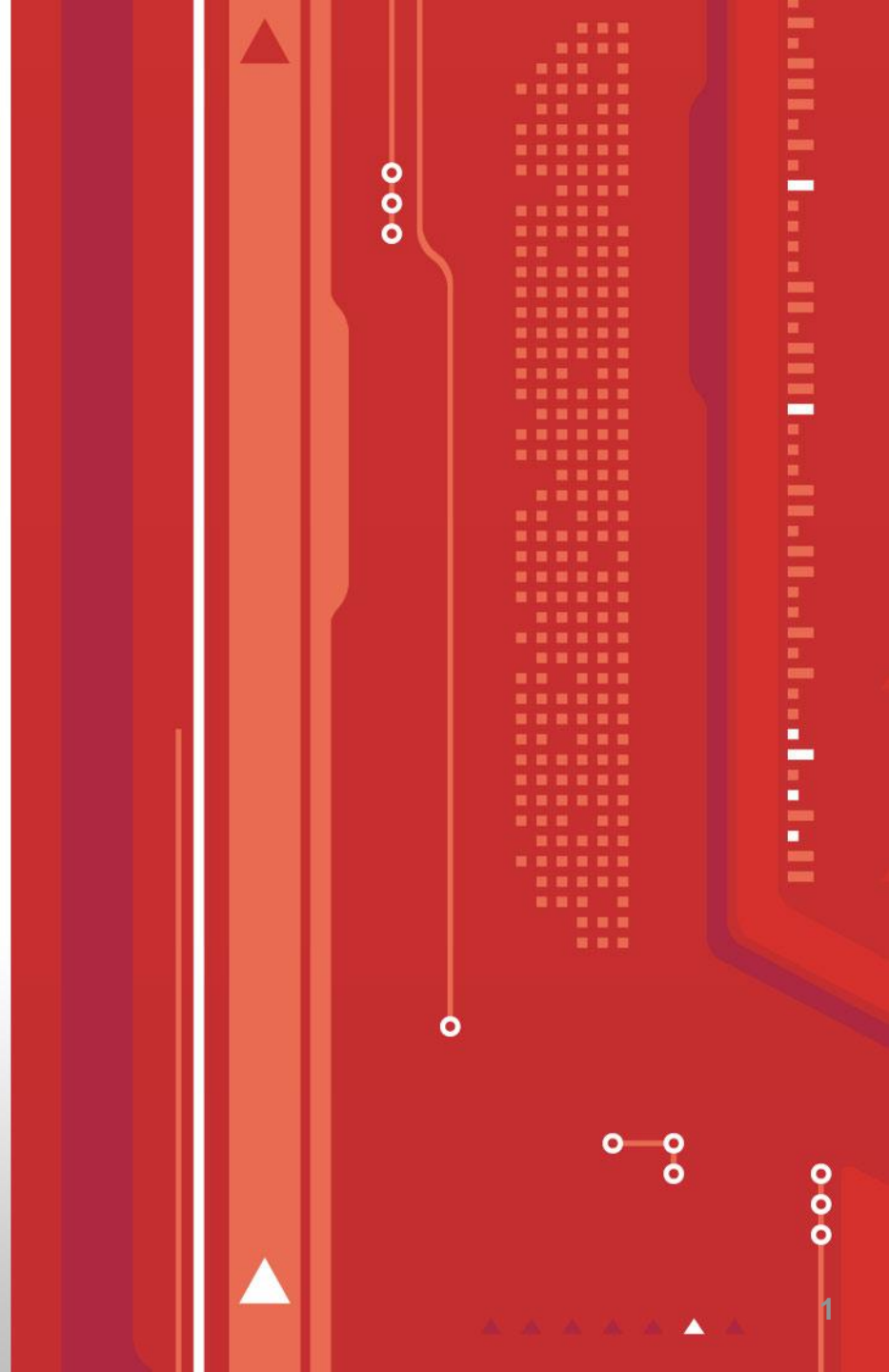
July 28, 2014

Mike Hughes

Lead Compliance Engineer

mhughes.re@spp.org

501-688-1712



State of Reliability 2014

May 2014

RELIABILITY | ACCOUNTABILITY



3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com

State of Reliability Report

- Provides an objective view of reliability performance
- Identifies trends and risks to reliability
- Serves as risk-informed input to standards projects



Bulk Electric System (BES) Performance

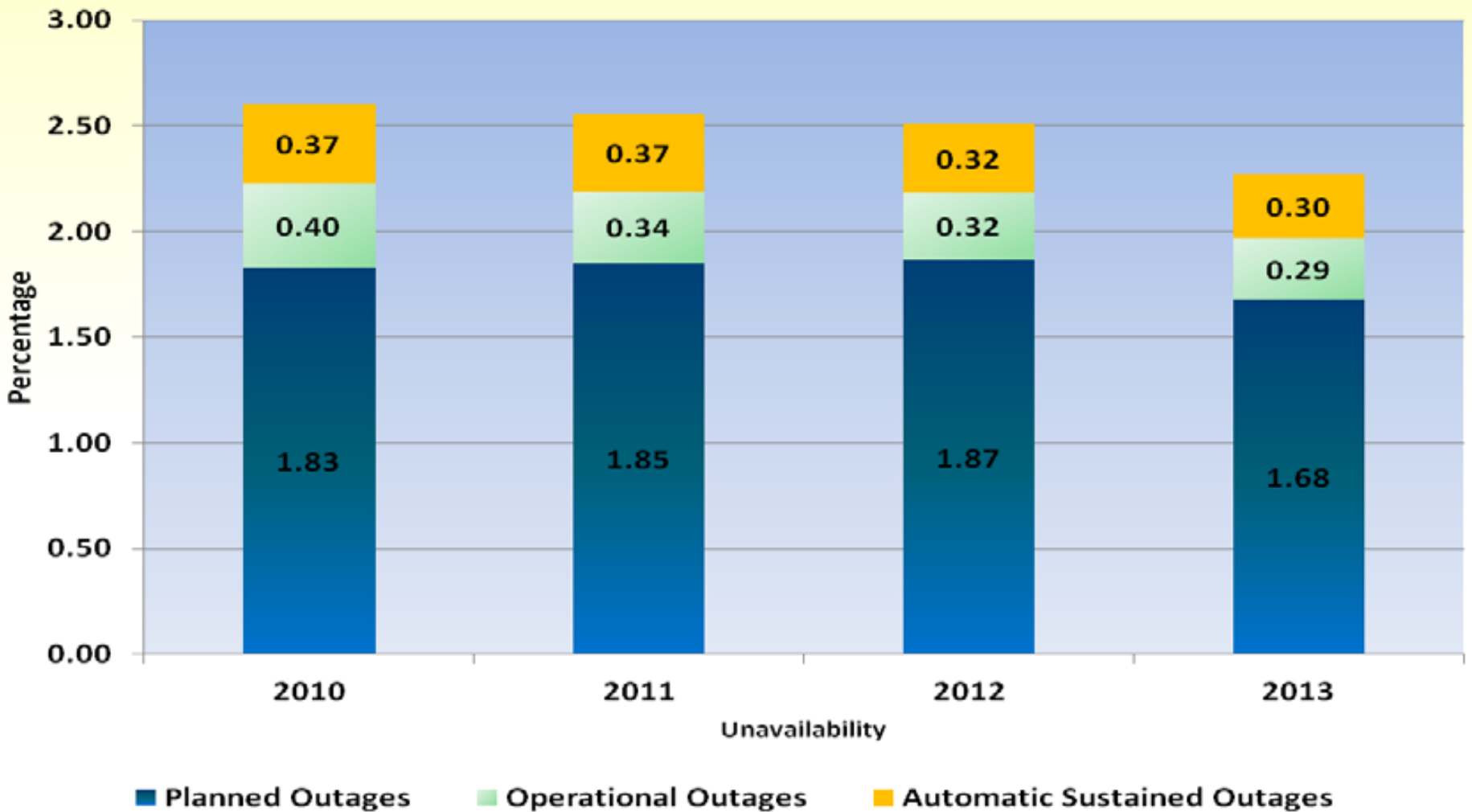
- Normal conditions/predefined disturbances
- Low-probability disturbances
- Major system disturbances
- Contingency analysis

Equipment Availability

- **Transmission circuit availability > 97%**
- **Transmission transformer availability > 98%**



NERC Transmission AC Circuits Unavailability by Outage Type (2010–2013)

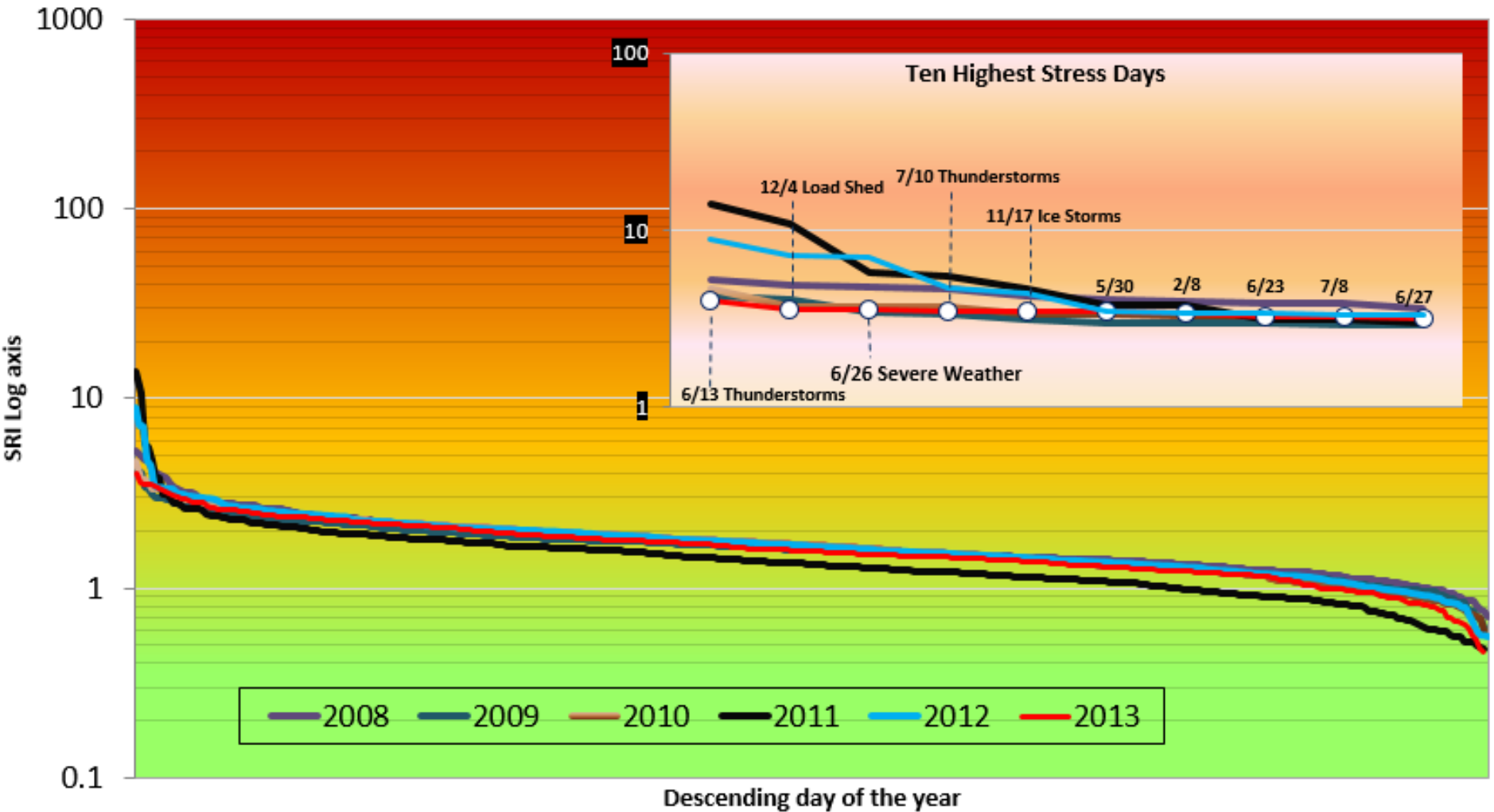


Key Finding 1: Sustained High Performance for BES Reliability



- **Daily Severity Risk Index (SRI) has been stable to improving from 2008 to 2013**
- **On average, SRI was approximately as good as 2008 performance, which is the best year on record**

Severity Risk Index (SRI)

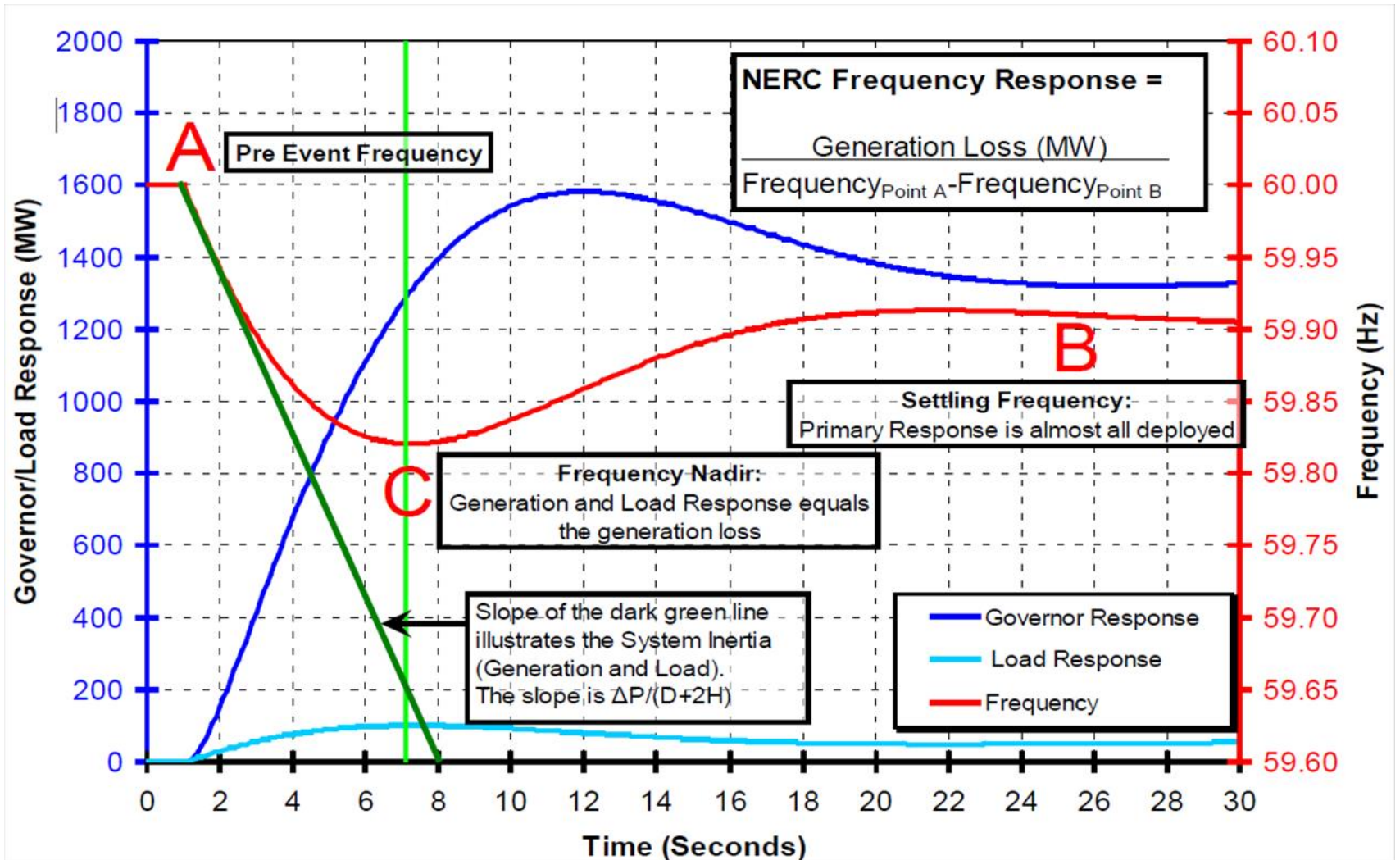


Key Finding 2: Frequency Response Remains Stable

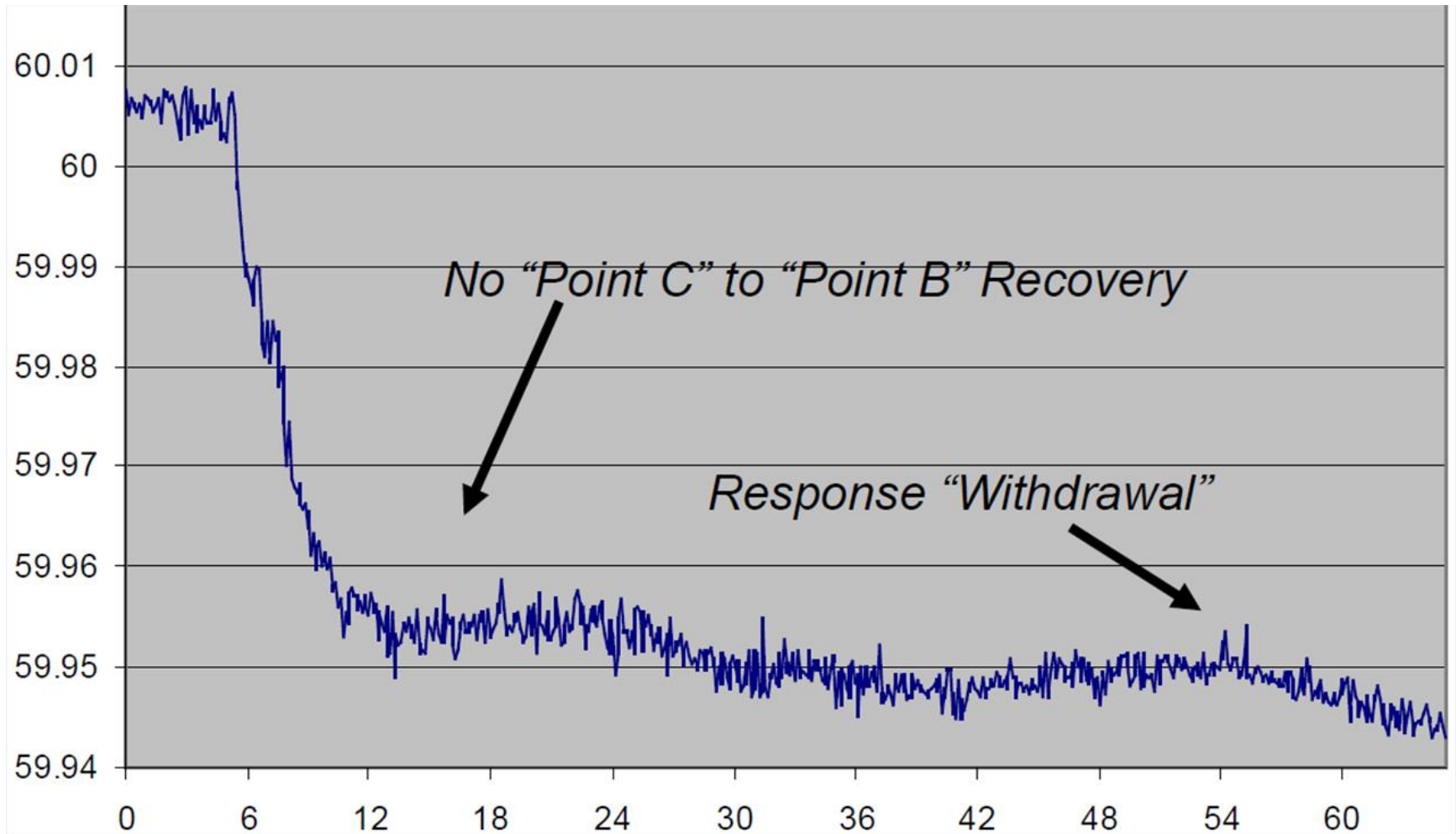


- Frequency response trending above the recommended interconnection frequency response obligation (IFRO)

Frequency Response Basics

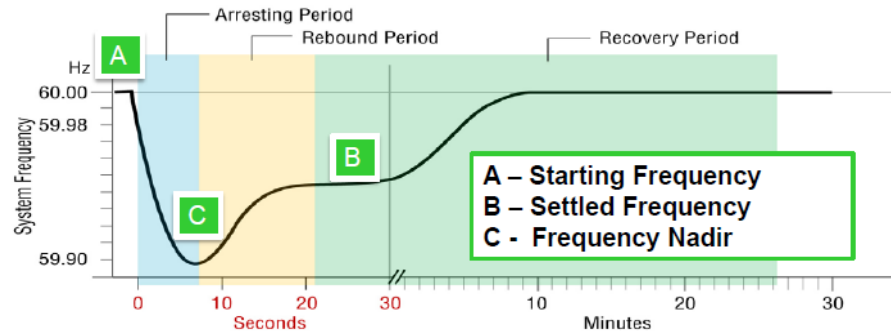


Typical EI Frequency Response



BAL-003-1

- April 2015



- IFRO 1,014MW/0.1Hz for Eastern Interconnection (EI)
- Frequency Response Obligation (FRO) for BAs

Key Finding 3: Protection System Misoperations Cause Transmission Events

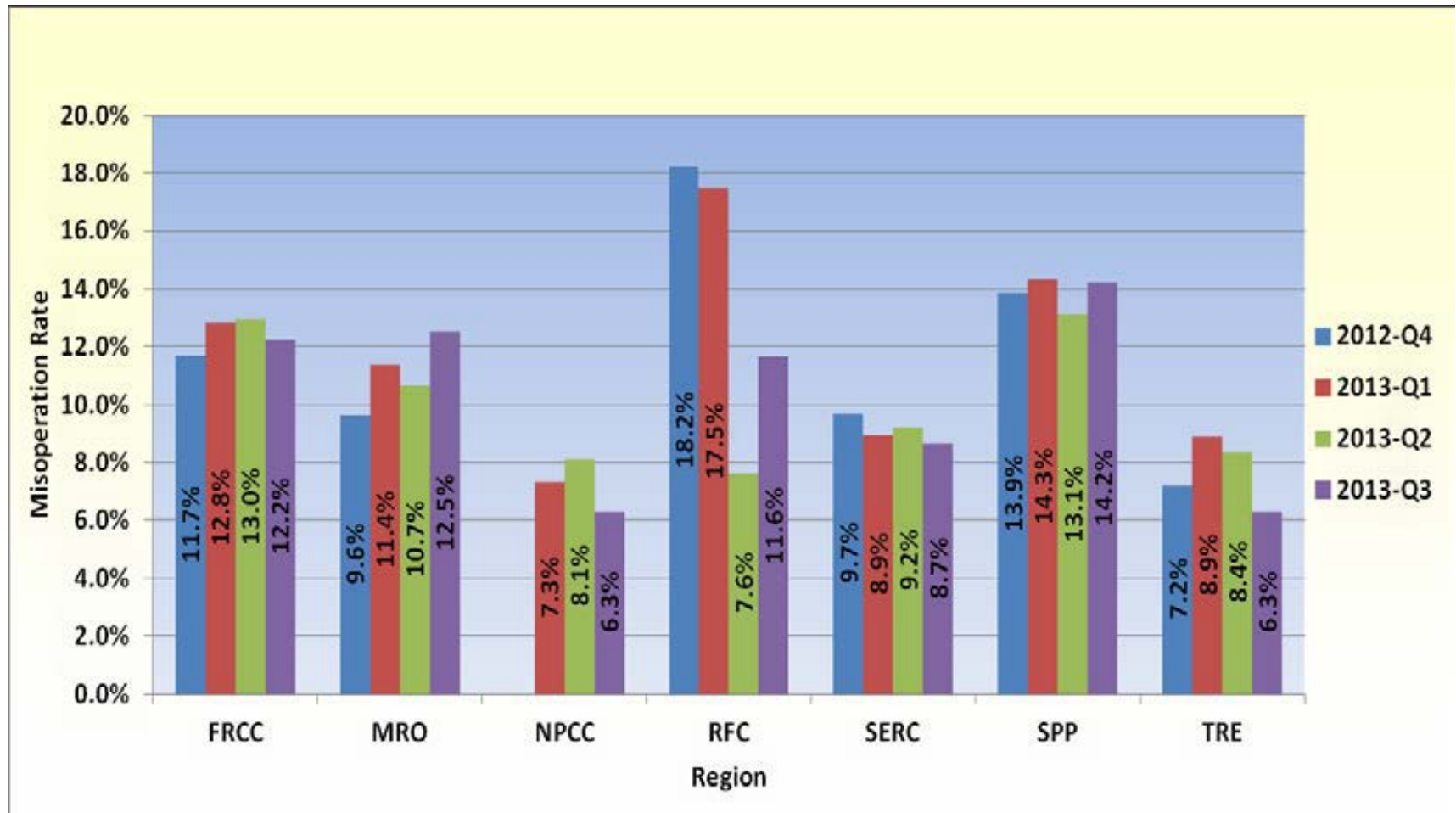


Contributing factor to:

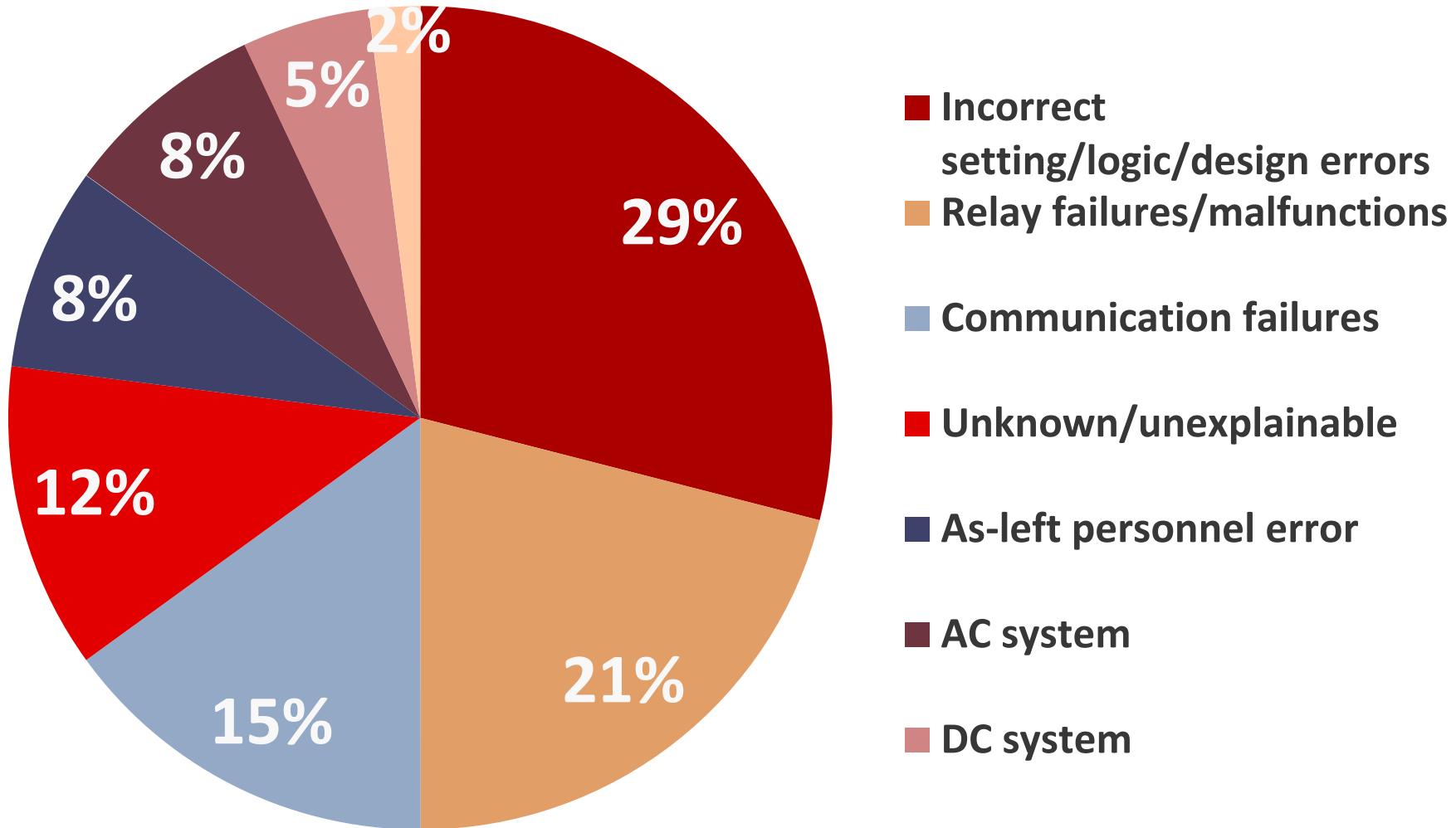
- Number of events
- Severity of events



Misoperation Rate by Region



NERC Misoperations by Cause Code from 2011 Q2 to 2013 Q3



Key Finding 4: Substation Equipment Failures Impact Transmission Event Severity

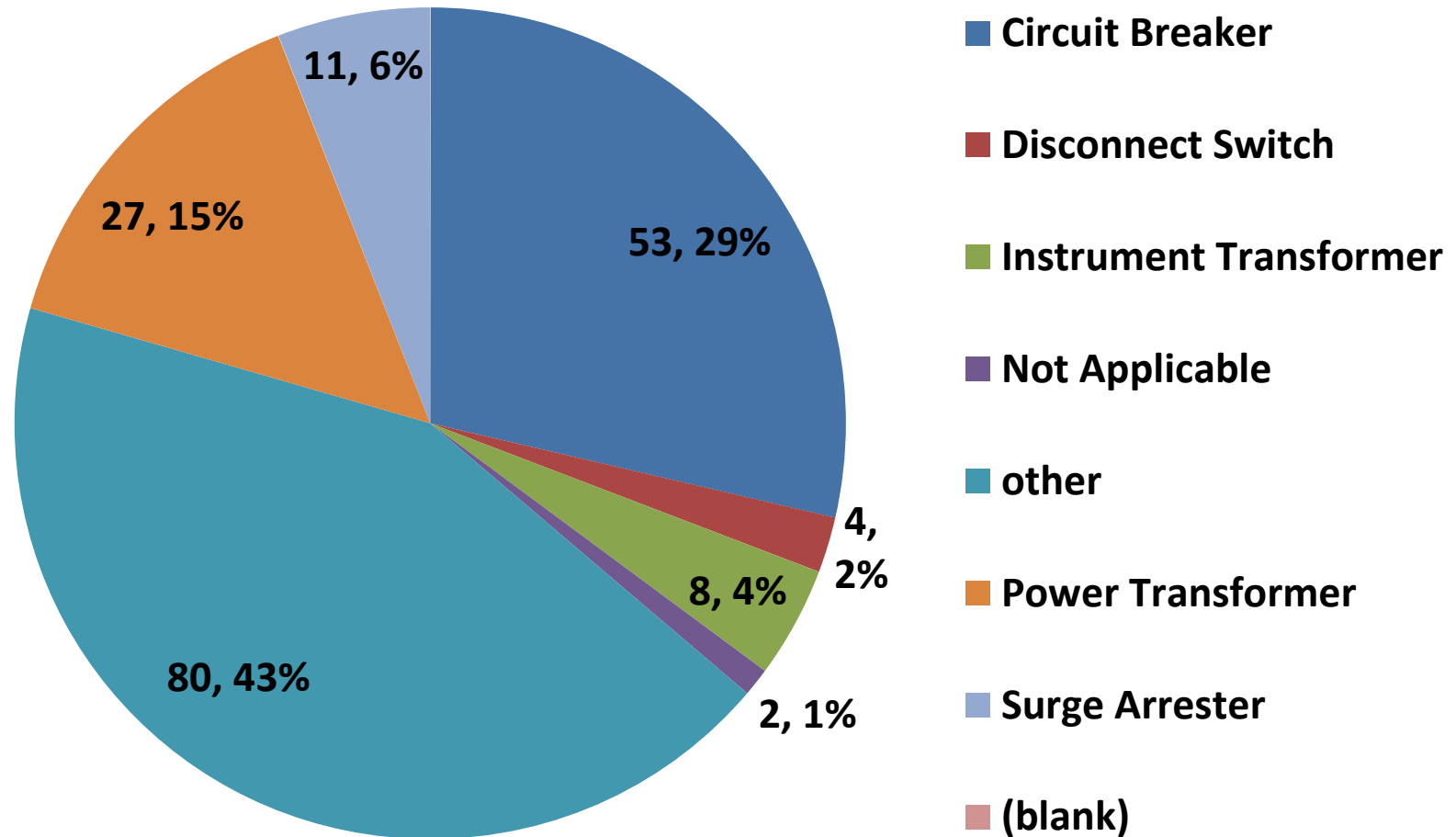


- Similar observation made in the previous year
- Thomas Teafatiller represents SPP RE on AC Substation Equipment Task Force
- 345 kV SF6 Puffer-Type Breakers 2013



Outages Sustained by Failed AC Substation/ Circuit

by Failed AC Substation/Circuit 2011Q2 to 2013Q370



Key Finding 5: Use of Energy Emergency Alert Level 3 Declines



- **Seven Energy Emergency Alert (EEA) Level 3 events declared in 2013**
 - Less than prior years
- **Only one of the EEA 3 events required firm load shed to preserve BES reliability**



EEA-3 by Regions

Energy Emergency Alert 3								
Number of Events	Year							
	2006	2007	2008	2009	2010	2011	2012	2013
NERC	7	23	12	41	11	23	15	7
FRCC	0	0	0	0	0	0	0	1
MRO	0	0	0	0	0	0	0	0
NPCC	0	0	1	1	0	0	0	0
RFC	0	3	1	0	2	0	1	0
SERC	4	14	2	3	4	2	7	0
SPP *	1	5	3	35	4	15	6	2
TRE	0	0	0	0	0	1	0	0
WECC	2	1	5	2	1	5	1	4

* Note: The two EEA3 events in 2013 were filed by SPP for the SERC Region



SPP *Southwest
Power Pool
Regional Entity*

Mike Hughes

Lead Compliance Engineer

mhughes.re@spp.org

501-688-1712

CIP Update

SPP RE Trustees Meeting
July 28, 2014

Kevin B. Perry
kperry.re@spp.org · 501.614.3251



Agenda

- CIP Version 5 Standards Revisions
- CIP Version 5 Transition
- CIP-014 (Physical Security) Update

CIP Version 5 Standards Revisions

- First round of comments and balloting concluded 7/16
- Results:

	Ballot Results Quorum/Approval	Non-Binding Poll Results Quorum/Supportive Opinions
CIP-003-6	80.73% / 35.67%	77.81% / 31.86%
CIP-004-6	80.49% / 80.76%	77.27% / 77.63%
CIP-006-6	80.00% / 76.24%	77.27% / 74.56%
CIP-007-6	80.24% / 78.41%	77.27% / 75.44%
CIP-009-6	80.24% / 85.32%	77.27% / 85.59%
CIP-010-2	80.49% / 49.42%	77.54% / 39.04%
CIP-011-2	80.24% / 82.55%	77.01% / 79.74%
Definition	78.29% / 78.58%	N/A

- Comments to be considered. Revisions to CIP-003-6 and CIP-010-2 likely due to failed status.

CIP Version 5 Standards Revisions

- **Comments: Low Impact BES Cyber Systems**
 - Implied requirement to inventory Low impact BES Cyber Systems in order to demonstrate compliance.
 - Identification and monitoring of Physical Access Points for Low impact BES Cyber Systems is burdensome.
 - Clarification of “external routable protocol path.”
 - Combine requirements for Low impact BES Cyber Systems with similar requirements for High/Medium impact BES Cyber Systems throughout CIP Standards.
 - Need significantly longer implementation schedule.

CIP Version 5 Standards Revisions

- **Comments: Transient Devices**
 - **Excessive, highly burdensome documentation requirements.**
 - **How up-to-date must patches and anti-malware signature files be prior to use?**
 - **Allow device to move between Electronic Security Perimeters without re-preparation for “first use.”**
 - **Inability to manage or control third-party (e.g., vendor or consultant) device to the expectations of the Requirement.**

CIP Version 5 Standards Revisions

- **General Concerns:**
 - **Removal of Identify, Assess, and Correct (IAC) language reintroduces zero tolerance irrespective of the enforcement discretion included in the Reliability Assurance Initiative (RAI).**
 - **RAI replaces IAC, but RAI is not in its final state.**
 - **Definitions of Transient Cyber Asset and Removable Media need to be more clearly stated.**
 - **Proposed CIP RSAWs introduce new obligations exceeding the CIP requirements, are excessively burdensome, and are inconsistent.**

CIP Version 5 Transition

- **Updated guidance being finalized. Expected to be released mid-to-late August.**
 - **Allows entity to assert compliance with V5 requirement during V3 enforcement period for “mostly compatible” requirements.**
 - **Infers compliance with corresponding V3 requirement.**
 - **Can be asserted on requirement and/or asset base.**
 - **Any new Critical Cyber Assets resulting from adoption of V5 Impact Rating Criteria will not be subject to V3 compliance expectations.**

CIP-014 (Physical Security) Update

- **Notice of Proposed Rulemaking (NOPR) issued by FERC July 17, 2014.**
 - **Proposes to approve CIP-014-1, implementation plan, and VRF/VSL**
 - **Proposes modifications**
 - **Proposes informational filing**
 - **Seeks comments**
- **Comments due 45 days after NOPR published in the Federal Register. Reply comments due 60 days after NOPR published in the Federal Register.**

CIP-014 (Physical Security) Update

- **Proposed Modifications:**
 - **Allow Governmental Authorities (i.e., FERC and any other appropriate federal or provincial authorities) to add or subtract facilities from an applicable entity’s list of critical facilities under Requirement R1.**
 - **Remove the term “widespread” as it appears in the proposed Reliability Standard in the phrase “widespread instability.”**

CIP-014 (Physical Security) Update

- **Proposed Informational Filings:**
 - **Within six months of the effective date of a final rule addressing the possibility that CIP-014-1 may not provide physical security for all “High Impact” control centers as defined in CIP-002-5.1.**
 - **Within one year of the effective date of a final rule addressing possible resiliency measures that can be taken to maintain reliable operation of the Bulk Electric System following the loss of critical facilities.**

CIP-014 (Physical Security) Update

- **Comments desired on:**
 - Providing for applicable governmental authorities to add or subtract facilities from an entity's list of critical facilities
 - The standard for identifying critical facilities
 - Control centers
 - Exclusion of generators from the applicability section of the proposed Reliability Standard
 - Third-party recommendations
 - Resiliency
 - Violation risk factors and violation severity levels
 - Implementation plan and effective date

Enforcement Update

July 28, 2014

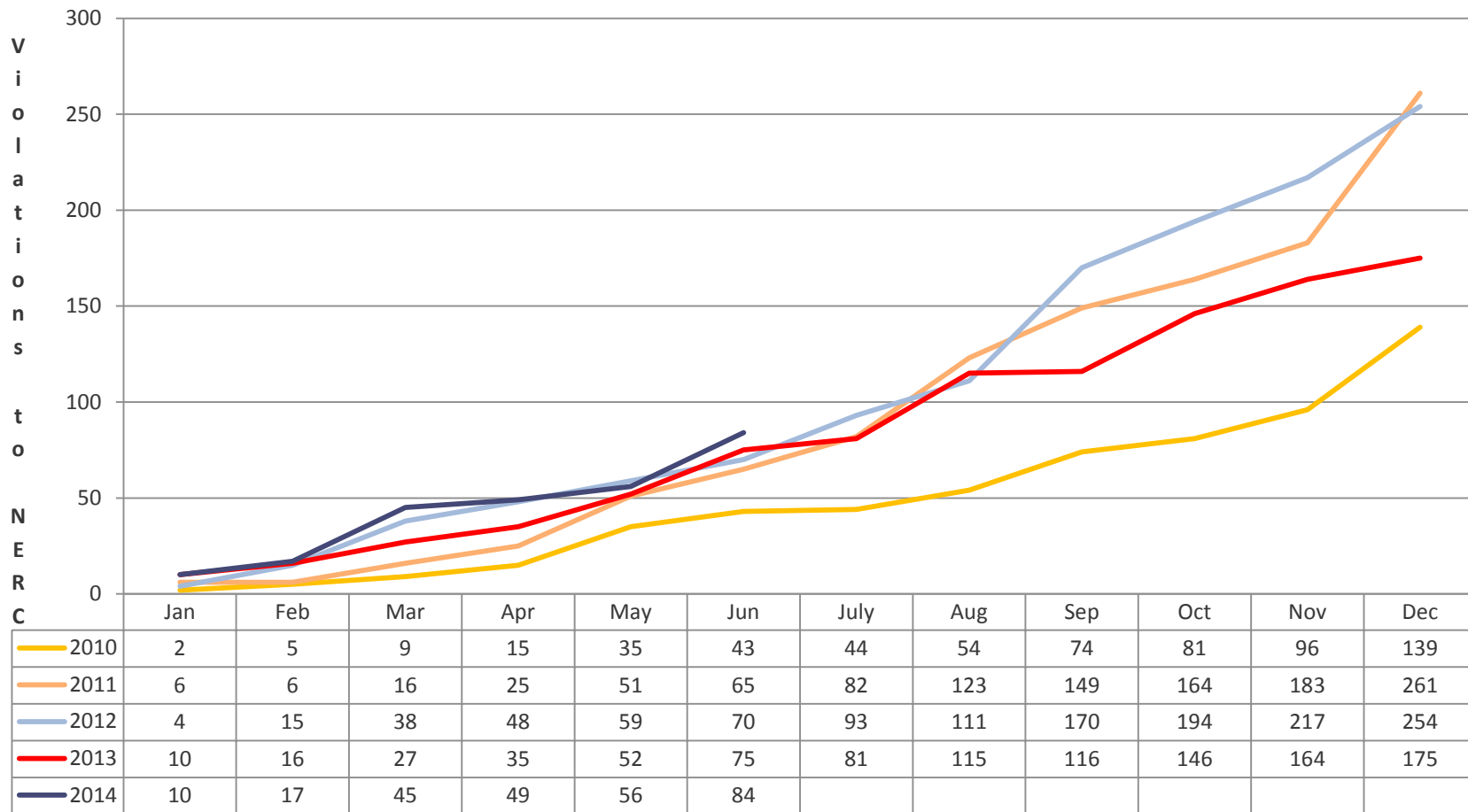
Joe Gertsch
Manager of Enforcement
jgertsch.re@spp.org
501-688-1672



SPP RE Enforcement Activities June 30, 2014	2007	2008	2009	2010	2011	2012	2013	First Quarter	April	May	June	Total 2014
Notice of Preliminary Screen Issued	-	-	-	-	-	-	-	26	9	11	22	68
Notice of Possible Violations Issued	6	56	132	254	239	173	189	13	14	3	12	42
Notice of Alleged Violation (NAVAPS)												
NAVAPS Issued	6	45	10	7	0	2	1	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	1
NOCV BOTCC Approved	0	7	11	29	4	1	0	1	0	0	0	1
Settlements / Full Notice of Penalty												
To NERC for Approval	0	0	0	89	118	52	5	0	0	0	5	5
BOTCC Approved	0	0	0	50	81	103	14	15	0	0	0	15
Settlements / Spreadsheet NOP												
To NERC for Approval	0	0	0	16	22	49	43	10	0	0	10	20
BOTCC Approved	0	0	0	0	38	49	65	1	9	0	0	10
Find, Fix, Track												
To NERC for Approval	-	-	-	-	43	78	86	22	0	5	5	32
BOTCC Approval	-	-	-	-	36	74	95	14	8	5	1	28
Dismissals												
To NERC/SPP RE SRT for Approval	0	0	1	16	75	43	41	11	5	2	8	26
NERC/SPP RE SRT Approved		0	1	16	75	43	41	11	5	2	8	26
Notice of Penalty												
Approved by FERC	0	5	13	57	180	184	141	58	0	0	9	67
Violations Awaiting BOTCC Approval											19	
Active Violations - Caseload											171	
Caseload Index (months)*											11.2	

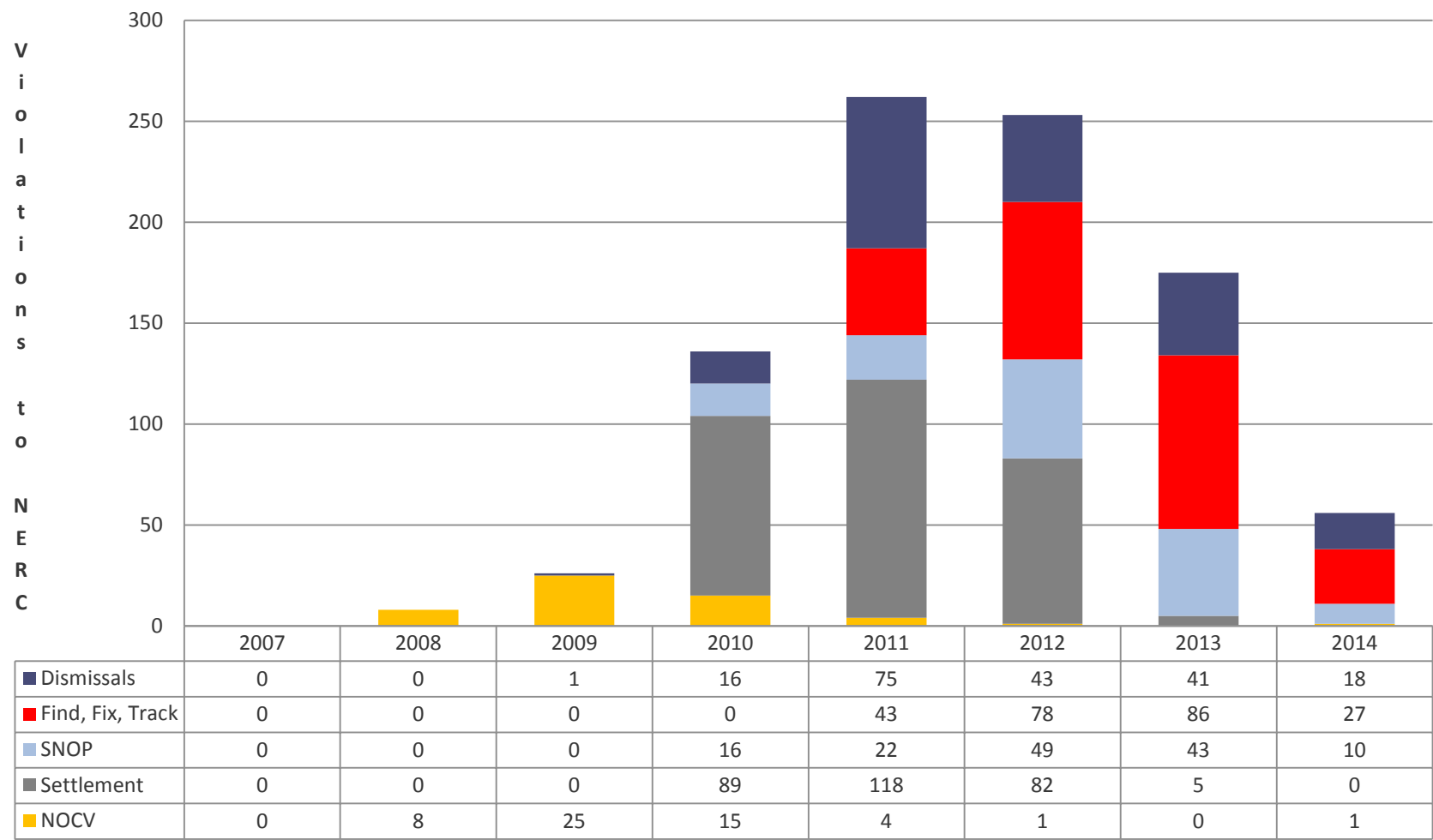
* Based on previous 12 months processing (184)

Enforcement Monthly Violation Processing

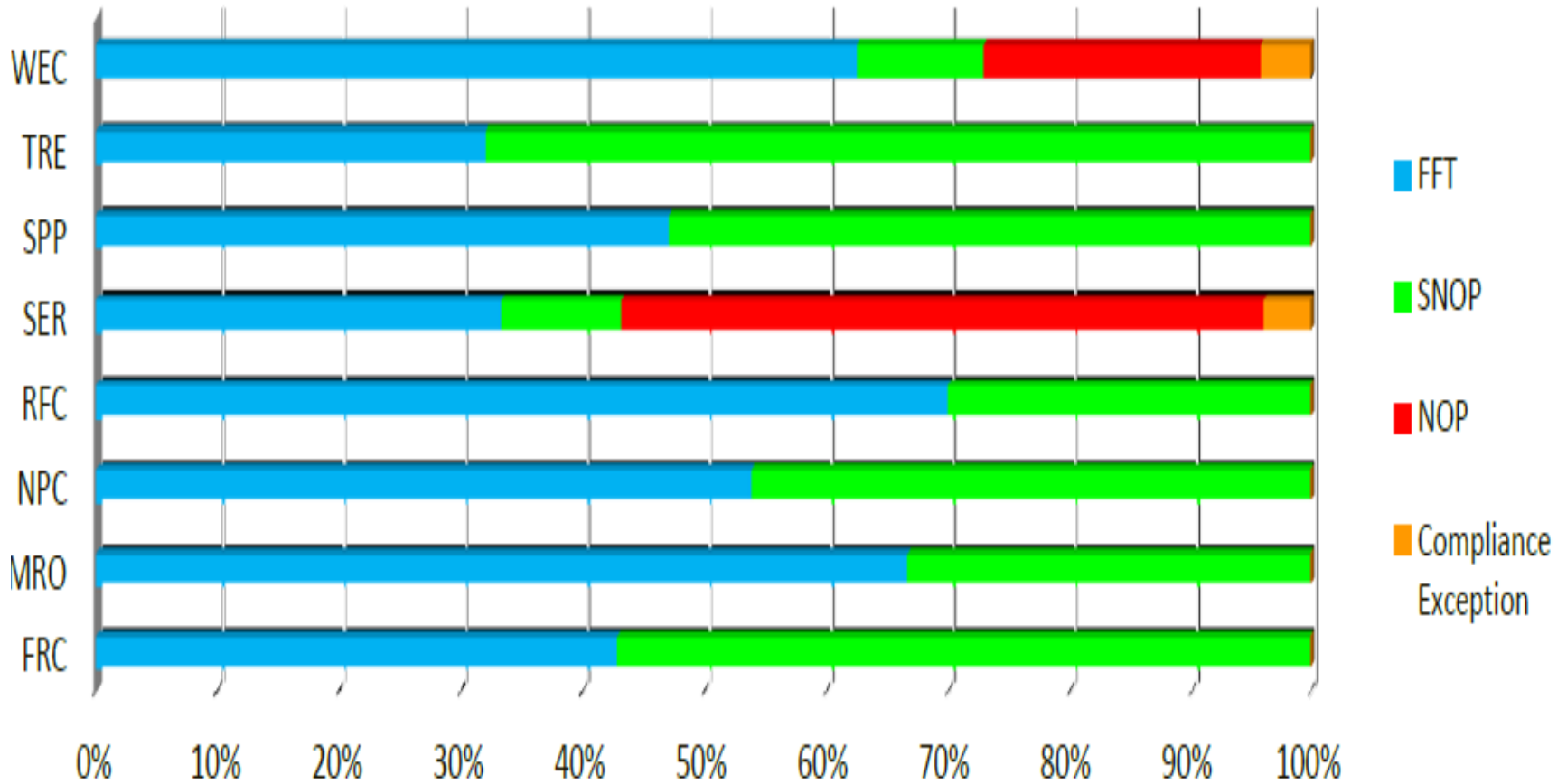


Running Total Violations

Enforcement Processing Methods



Disposition by Regional Entity – Q2 2014



Enforcement Caseload – June 30, 2014

- **171 - Open Violations**
 - 30 - Joint Settlement w/ Other Regions
 - 33 - Settlement
 - 78 - Settlement Not Requested (NAVAPS/NOCV)
 - 30 - Administrative Hold
- **63 - 693 Violations**
- **108 - CIP Violations**
- **21 - High Impact Violations**
- **Discovery Method**
 - 58 - Audit
 - 81 - Self Report
 - 22 - Self Certification
 - 1 - Spot Check
 - 9 - Investigation

Caseload Aging

- **SPP RE – 115 violations, average age - 301 days**

<u>Age (days)</u>	<u>Violations</u>
> 300	50
201 – 300	24
101 – 200	17
51 – 100	10
1 - 50	14

- **MRRE – 26 violations, average age - 372 days**
- **Admin Hold – 30 violations, average age - 939 days**

High Impact Violation Summary

- **21 – Open High Impact Violations**
 - 10 - Settlement
 - 2 - Multi Region
 - 9 - Disposition Undetermined
- **Open High Impact Violations Mitigation Status**
 - 11 - Mitigation Plan Complete
 - 8 - Mitigation Plan Accepted
 - 2 - Mitigation Plan Initiated (No Action)

SPP RE 2014 Violation Dismissals

Consolidation with another violation	15
NERC V3 – V5 Guidance (approach 2)	1
Self-Report wrong standard and/or requirement.....	4
Provided exculpatory evidence	3
Incorrect Interpretation of Standard	<u>3</u>
Total	26

June Mitigation Plan Summary

- Mitigation Plan Status (month/year)**

Submitted	7/60
Accepted	6/68
Certified Complete	9/68
Completion Verified	14/69

- Open Violations with no Mitigation Plans**

Administrative Hold	11
Work in Progress	0
Initiated	46
Submitted	<u>0</u>
Total	57



SPP *Southwest
Power Pool
Regional Entity*

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

TO: SPP Regional Entity Trustees
FROM: Ron Ciesiel, SPP RE General Manager
DATE : July 28, 2014
SUBJECT: SPP RE General Manager Report

Emerging Issues

NERC Reliability Assurance Initiative [RAI]

With the wrap-up of the RAI pilot programs, the RAI Steering Team is in the process of developing two final reports on the direction of the remaining attributes of the initiative; first, Inherent Risk Assessment [IRA] is in draft form and under review at the REs, and secondly, Internal Controls Review [ICR] which is scheduled for release at the end of the summer. The goal of the RAI project is to close the gap between the one-size-fits-all program of today to a more risk informed customized program melding all of the compliance oversight tools into a single oversight engagement rather than discreet actions as they are done today. The SPP RE has been implementing an enhance IRA practice for its audit activities for approximately one year and will make the adjustments, if needed, in the final NERC IRA instructions. The ICR will be a formal program outlined for the REs to follow to assess the internal control programs of the registered entities. This process will allow the REs to customize approaches to compliance oversight for specific registered entities.

While the SPP RE staff generally knows the contents of the two programs discussed above, many of the details are still under consideration and will be rolled out to the REs over the next several for implementation in 2015.

In addition, upgrades to webCDMS should be completed around Labor Day which will allow the SPP RE to implement the Compliance Exception category to its decision making toolkit. A Compliance Exception will be a very minor infraction that the RE does not believe merits enforcement action and will be 'off ramped' at the RE, catalogued, trended and bulk uploaded to NERC on a periodic basis.

BES Definition and Exemption Process

Official effective date was July 1, 2014.

Registered entity training was provided by both NERC and SPP RE during June 2014.

Activity has been modest to date across all of the REs except for NPCC.

SPP RE has been meeting its review timelines for those items that have been submitted.

Registration Program Review

In conjunction with the rollout of the revised BES definition, NERC has begun an initiative to review and possibly revamp the entity registration criteria. This effort may include the elimination of certain registered functions, raising the threshold requirements for certain others and a change to performance requirements for tiered functions in the registry.

In **draft** form, the following functions are recommended for elimination:

- Load Serving Entity [LSE]
- Interchange Authority [IA]
- Purchasing Selling Entity [PSE]

In **draft** form, the threshold for inclusion in the registry for a Distribution Provider [DP] is recommended to increase from 25MW to 75MW.

This effort is underway with final recommendations available in 4Q 2014.

CIP Transition and Physical Security Standard

The CIP v3 to v5 pilot project is wrapped up and the results will be used to help guide us, the SPP RTO and the SPP RE Registered Entities during the next ~ 20 months as all of the entities transition from v3 to v5.

NERC is in the process of finalizing a transition guidance document for use by the REs and the Registered Entities that includes instructions on how to deal with issues surrounding the now defunct Version 4, oversight activities for small entities, plus other issues. Expected publication date is mid-August 2014.

In **draft** form some of the current items being recommended include:

1. The cessation of audits of entities with no current Critical Assets;
2. Allowance to declare the use of the V4 or V5 Brightline Criteria in lieu of the V3 RBAM technique;

3. Requirement of the registered entities to declare their decision on number 2 above before scheduled compliance activities begin; and
4. An increased outreach effort by the REs in the form of non-compliance discussions with individual entities on the transition issues [similar to previous Readiness Evaluation Program].

In addition, the FERC ordered NERC to fast track a Physical Security Standard [CIP-014] for completion in 2014 and implemented in 2015. The Standard has been finished and voted on by the Standards Ballot body, approved by the NERC BOT and has been submitted to the FERC for final approval.

2015 Budget

The approved 2015 SPP RE budget calls for a flat budget when compared to the 2014 budget, including a slight reduction in manpower.

All RE budgets have been submitted to NERC which has held public meetings concerning these budgets. Final approval at NERC is expected during the August 2014 round of meetings before being submitted to FERC in September.

Public Speaking Engagements

I have been invited to speak at the NAES compliance forum to be held during August 2014.

Administrative and Organizational Issues

Organizational

None to report for this period

Staffing

The following personnel changes were made since the last report:

Promotions – None

Additions – None

Terminations – None

Currently, the SPP RE has 3 open positions, including:

Director of Compliance position, and
Two technical positions in the Events and RAPA area.

GM note: We are holding these positions open at the current time while we evaluate organizational needs for the final implementation of the RAI components. This assessment should be finished by the end of the year and final organizational changes, if needed, will be announced at that time.

Administrative

None to report for this period.

Respectfully submitted:

Ronald W. Ciesiel
SPP RE General Manager
July 28, 2014

Compliance Group Report to the SPP RE Trustees

July 28, 2014

Ron Ciesiel
SPP RE General Manager

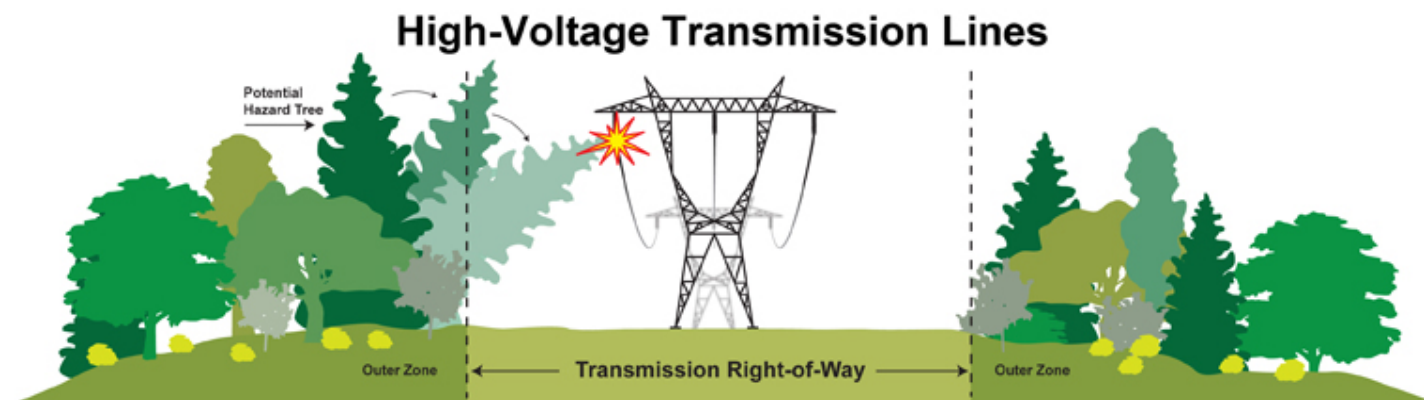


Bulk Electric System Definition Update

- New BES definition went into effect 7/1/14
- [BESNet tool](#) open for submitting collect Self-Determinations and Exception Requests
- If registered as RC, PA, TO, TOP, or BA, you must have at least one BESnet Entity Administrator *even if you do not expect to submit Notifications or Requests*
- Exception Requests submitted between 7/1/14 and 9/1/14 will be [considered for Compliance purposes as received on 7/1/14](#)
- Current Activity has been modest across ERO
- Contact [Greg Sorenson](#) for more information

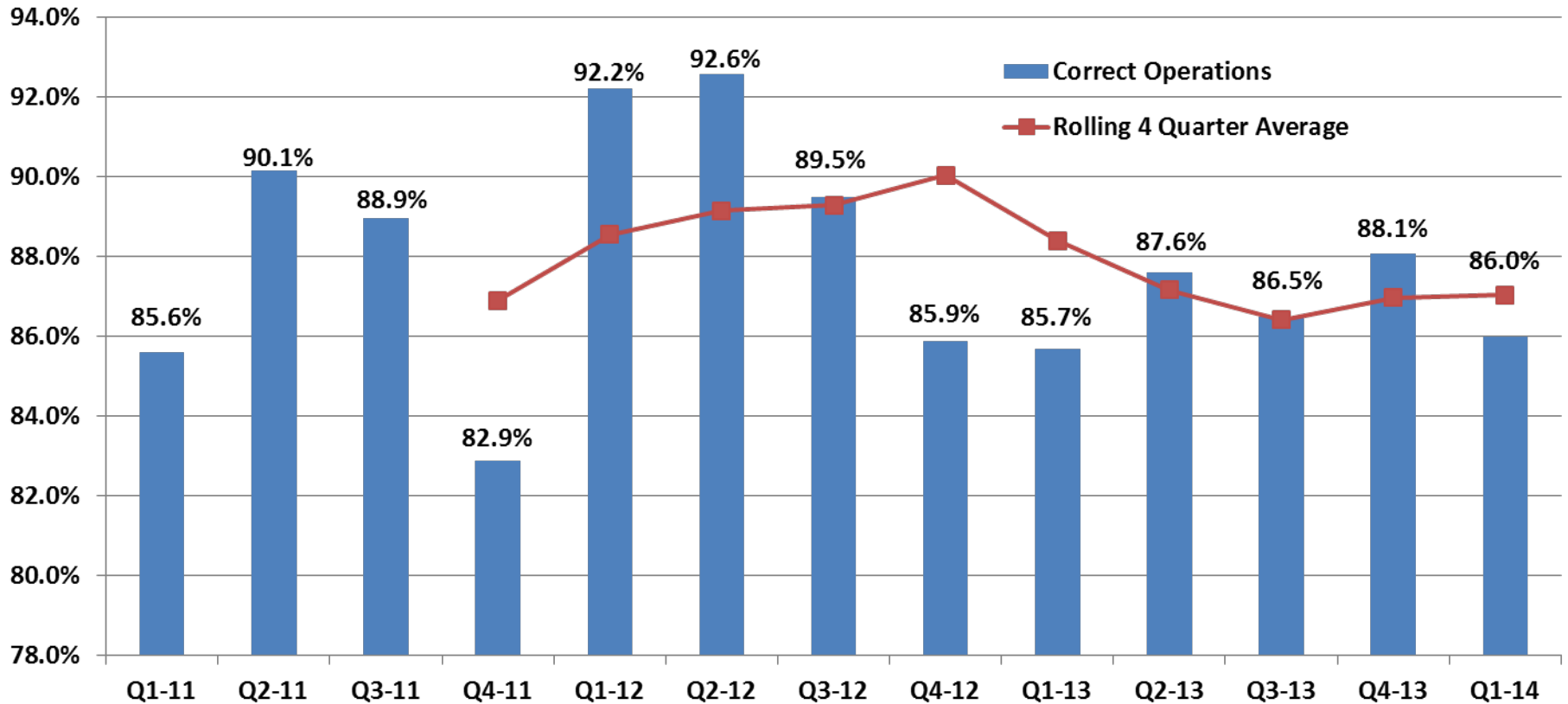
Vegetation Management Update

- NERC 2Q 2014 Vegetation Management Report
 - No reportable contacts in SPP RE footprint
 - 5th consecutive quarter with no reportable contacts



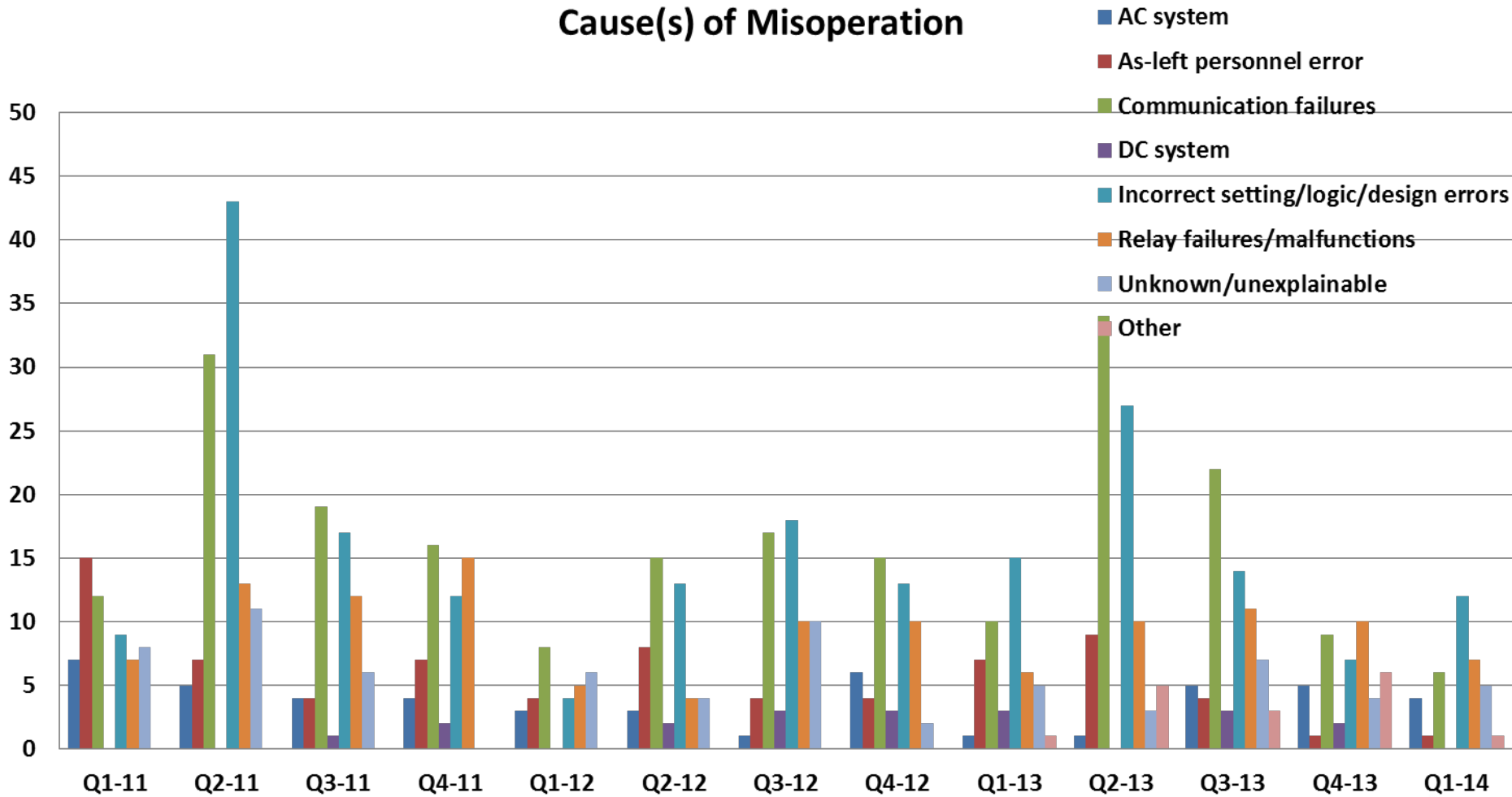
SPP RE Misoperation Report as of 1Q 2014

Relay Operational Performance- Success Rate



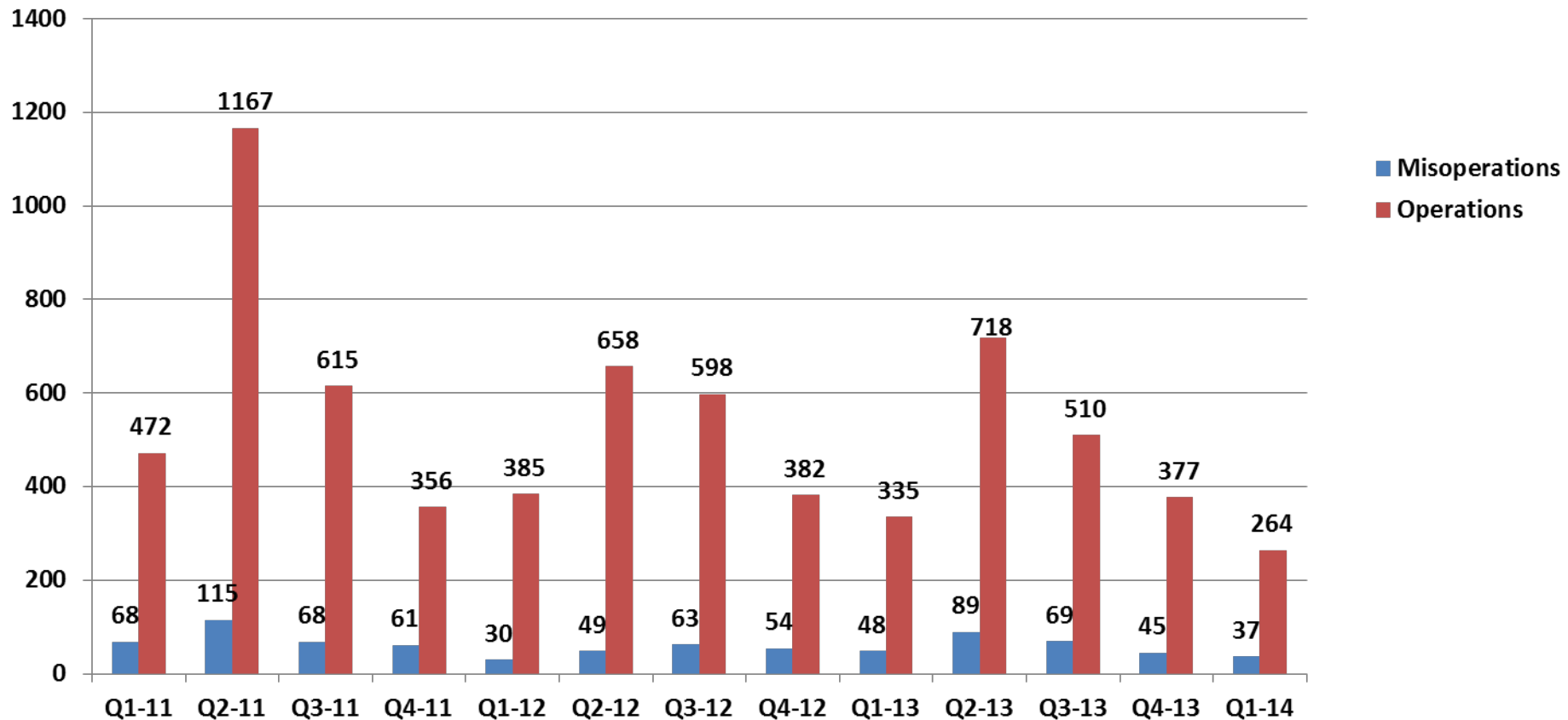
Causes of Misoperations 1Q 2011-1Q 2014

Cause(s) of Misoperation



Operation/Misoperation Comparison

Operation/Misoperation



Most Violated Standards

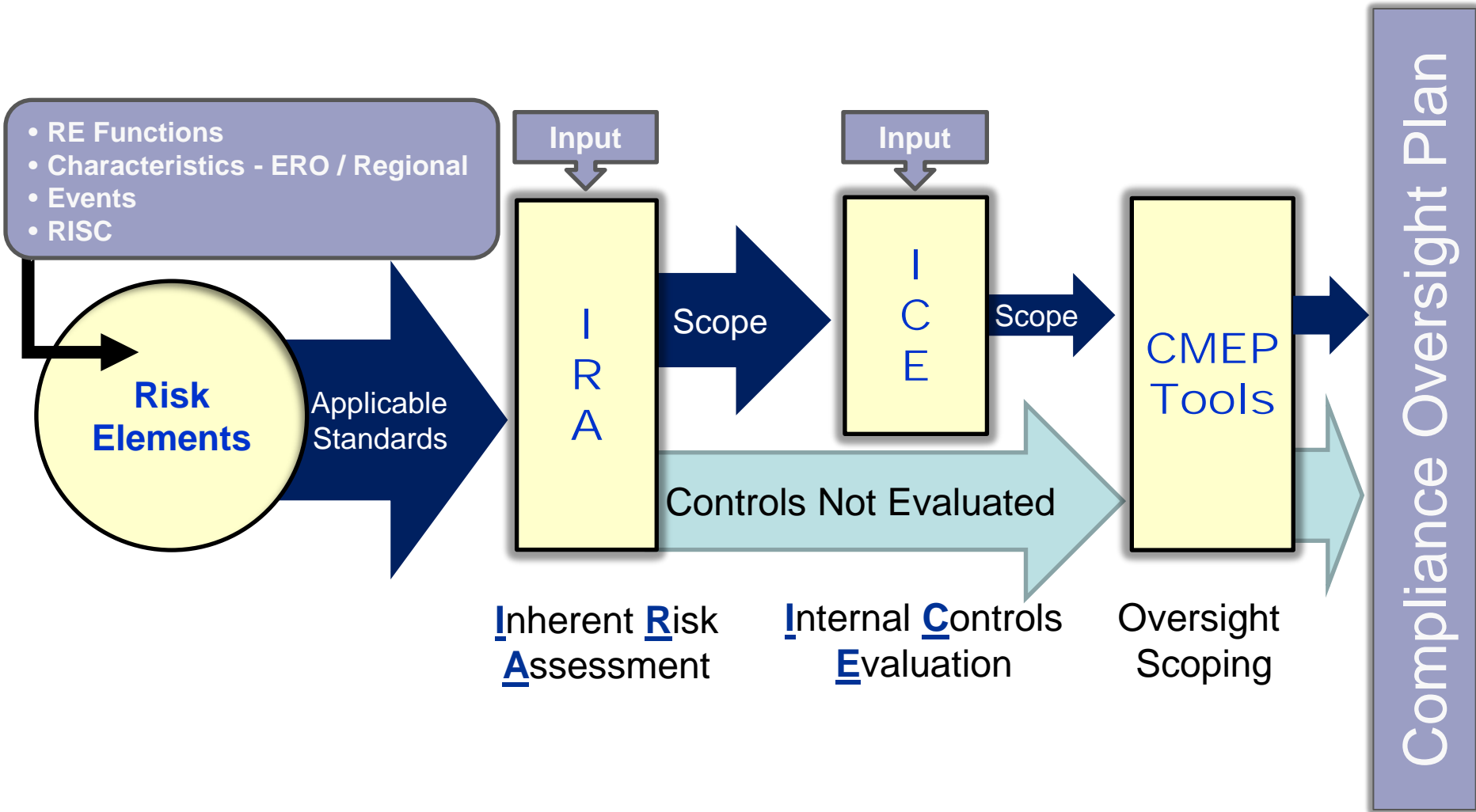
Based on rolling 12 months through 6/30/14 [Represents ~ 85% of total violations]

SPP RE Rank	NERC 12 Month Rank *	Standard	Description	Number of Violations	Risk Factor
1	1	CIP-007	Systems Security Management	28	Medium
2	10	FAC-008	Facility Ratings (includes FAC-009)	23	Med./Lower
3	3	CIP-005	Electronic Security Perimeters	22	Medium
4	2	CIP-006	Physical Security - Critical Cyber Assets	13	Med./Lower
5	4	PRC-005	Protection System Maintenance	12	High/Lower
6	6	CIP-002	Critical Cyber Asset Identification	11	High/Lower
7	5	CIP-004	Personnel & Training	8	Med./Lower
8	7	CIP-003	Security Management Controls	7	Med./Lower
9	8	VAR-002	Network Voltage Schedules	5	Med./Lower
10	**	PRC-008	UFLS Relay Maintenance	5	Medium

* NERC Report Q4 2013

** Not in NERC Rolling 12 month Top Ten

RAI Oversight Plan Framework



Outreach

- **Upcoming Events**
 - Sept. 30-Oct. 1, [Fall Workshop](#), Oklahoma City
 - Oct. 1-2, [RTO Compliance Forum](#), Oklahoma City
- **Materials posted for [June CIP Workshop](#), attended by 172 stakeholders**
- **New CIP videos posted to online video training library**
 - [Active Vulnerability Assessments](#)
 - [CIP-010 and Change Management](#)
 - [Port Scans & Configuration of PSP Maintenance Laptop](#)
 - [Technical Feasibility Exception Process Update](#)

SOUTHWEST POWER POOL REGIONAL ENTITY
STATEMENT OF ACTIVITIES
2014 JUNE YTD DRAFT (UNAUDITED)

<i>(In Whole Dollars)</i>	2014 JUNE YTD ACTUAL	2014 JUNE YTD BUDGET	VARIANCE	2014 FULL YEAR PROJECTION	2014 FULL YEAR BUDGET	VARIANCE
Funding						
ERO Funding	4,609,562	4,609,561.50	-	9,219,123	9,219,123	-
Penalty Sanctions	254,167	254,166.50	-	508,333	508,333	-
Total SPP RE Funding	4,863,728	4,863,728	-	9,727,456	9,727,456	-
Testing Fees	-	-	-	-	-	-
Workshops	-	-	-	-	-	-
Interest	1,345	-	1,345	-	-	-
Miscellaneous	-	-	-	-	-	-
Total Funding (A)	4,865,073	4,863,728	1,345	9,727,456	9,727,456	-
Expenses						
Personnel Expenses						
Salaries	1,701,663	2,051,667	(350,004)	3,451,647	4,103,334	(651,687)
Payroll Taxes	136,690	156,952.50	(20,262)	276,178	313,905	(37,727)
Benefits	161,044	165,402.50	(4,358)	322,690	330,805	(8,115)
Retirement Costs	80,739	82,066.50	(1,327)	161,662	164,133	(2,471)
Total Personnel Expenses	2,080,137	2,456,089	(375,952)	4,212,177	4,912,177	(700,000)
Meeting Expenses						
Meetings	49,123	45,750	3,373	96,832	91,500	5,332
Travel	160,544	243,000	(82,456)	355,668	486,000	(130,332)
Conference Calls	-	-	-	-	-	-
Total Meeting Expenses	209,668	288,750	(79,082)	452,500	577,500	(125,000)
Operating Expenses						
Contracts & Consultants	295,438	515,500	(220,062)	776,050	1,031,000	(254,950)
Office Rent	-	-	-	-	-	-
Office Costs	4,126	4,000	126	8,146	8,000	146
Administrative Costs	-	-	-	-	-	-
Professional Services	86,144	233,050	(146,906)	295,904	466,100	(170,196)
Computer Purchase & Maint.	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-
Miscellaneous/ Contingency	-	-	-	-	-	-
Total Operating Expenses	385,709	752,550	(366,841)	1,080,100	1,505,100	(425,000)
Total Direct Expenses	2,675,514	3,497,389	(821,875)	5,744,777	6,994,777	(1,250,000)
SPP Inc. Indirect Expenses	2,041,064	2,414,426	(373,362)	4,228,852	4,828,852	(600,000)
SPP RE Indirect Expenses	-	-	-	-	-	-
Total Indirect Costs	2,041,064	2,414,426	(373,362)	4,228,852	4,828,852	(600,000)
Total Expenses (B)	4,716,577	5,911,815	(1,195,237)	9,973,629	11,823,629	(1,850,000)
Net Change in Assets (A-B)	148,496	(1,048,087)	1,196,582	(246,173)	(2,096,173)	1,850,000
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))	4,716,577	5,911,815	(1,195,237)	9,973,629	11,823,629	(1,850,000)
Change in Working Capital (Total Funding less Total Budget) (A-B-C)	148,496	(1,048,087)	1,196,582	(246,173)	(2,096,173)	1,850,000
FTEs*	29.5	34.5	(5)	31	34.5	(3.5)
Beginning WC - 01/01/2014	3,383,977	2,096,173	1,287,804	3,383,977	2,096,173	1,287,804
Change to WC - 2014 YTD	148,496	(1,048,087)	1,196,582	(246,173)	(2,096,173)	1,850,000
Working Capital as of 6/30/14	3,532,473	1,048,087	2,484,387	3,137,804	-	3,137,804

*Headcount (RE direct staff count as of 6/30/2014 and shared staff YTD billed hours/1880).

SPP RE Metrics Reporting as of June 30, 2014

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

1. High Impact

Accept MP or issue NAVAPS at avg. of <= 100 days

Current Avg. Days : **93.53**

2. Maintain Caseload

Maintain a one year caseload

FFT	Settle	Dismiss	NOCV	Total:	Yr. Passed	50.00%
32	25	26	1	84	Caseload Complete	45.41%

3. Mit. Accept/Reject

Accept/Reject Mit Plans w/in 30 days

Current Avg. Days : **8.23**

Metric Eligibility : 100.00%

4. Mit. Plan Completion

Complete Mitigation reviews <= 25 days

Current Avg. Days : **8.90**

5. Process Pre-2013 Violations

Process 100% of Pre-2013 Caseload

% Processed: **31.43%**

% Metric Period Passed: 50.00%

6. 60 Day Triage

Complete Incoming Compliance Issue Triage in <= 60 days

Current Triage Avg. : **19.90**

7. Records Close Out

Complete Violation Closeout in <= 60 days

of Violations closed out: **100**

100% of Violations closed-out within 60 Days

80%-99% of Violations closed-out within 60 Days

Less than 80% of Violations Closed-out within 60 Days

% of Violations Closed-out within 60 Days: **72%**

8. Publish Off-Site Audit

Publish Off-site w/in 50 days

Current Avg. Days : **21.56**

9. Publish On-Site Audit

Publish On-site w/in 70 days

Current Avg. Days : **39.77**

10. BES Request Review

Review requests w/in 10 days and issue determination

Current Avg. Days: **6.36**

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

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

Current Success Rate: **100%**

Target: 100%

% Published w/in Allotted Time

12. Incoming Processing

Notify NERC of new violations w/in 5 business days

Current Avg. : **2.30**

13. Cost Control

Maintain Costs at or below 2014 projections

Cash Outlays Reported: **13**

Costs at or below

Costs 10% or less above

Costs more than 10% above

% Above/Below Projected Costs: **-43.98%**

14. Maintain/Increase Misop Success

87 % success rate or greater over rolling 4 quarter avg.

Current Success Rate: **87.20%**

15. Cause Code Success Rate

Achieve 90% success rate in Cause Coding Events

Current Success Rate: **100.00%**

16. Outreach

Conduct 3 Workshops, 6 webinars, and 12 newsletters in '14

Physical Security Guidance for Risk Assessment for Identifying Critical Infrastructure

NERC plans to generate a white paper based on comments collected from Transmission Owners, regarding their approach and practices in determining their critical facilities and Regional Entities, developing a regional specific approach.

Regional Update

Regional Entity representatives provided a regional update on their current efforts and concerns.

- The WECC representative identified gaps in several areas in their region where there is no registered Planning Coordinator for facilities. To resolve these gaps, WECC has been reaching out to individual Reliability Entities in preparation for NERC Standard MOD-032, portions of which goes into effect July 1, 2015.
- The MRO representative highlighted several substation-modeling inconsistencies in and near North Dakota and South Dakota. MRO is currently sorting out these inconsistencies with both MISO and SPP Planning Coordinators.
- The SPP representative identified an unusually high concentration of mis-operations in their area that has necessitated a further regional analysis and the development of a mis-operations white paper.
- The SERC representative identified a 2014 initiative to focus on modeling uncertainties regarding generator parameters, reactive loads, and load modeling to better link planning to real-time operations.
- MRO – working on model development to meet MOD-32 requirements. The struggle is to take the six independent regional models and combine them into one; the MRO, SPP, and MISO region combination has become somewhat messy. The new process will require the Planning Coordinators coordinate to present modeling data to MMWG rather than MRO. It is hoped that the NERC Modeling Task Force will help the Planning Coordinators accomplish this.

Performance Analysis Subcommittee (PAS)

The NERC State of Reliability Report was reviewed and status update on subcommittee activities to address various recommendations in the report regarding Frequency Reponses, Mis-operations, and AC Substation Equipment Failures

Transmission Availability Data System Working Group (TADSWG)

TADSWG in coordination with Regional Entities, is planning to survey Reliability Entities to identify the three most common failures leading to mis-operations. The group is also supporting BES Definition Implementation and working with Regional Entities to educate Reliability Entities not to report “Unknown” Cause Codes.

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Generating Availability Data System Working Group (GADSWG)

GADSWG is in process of updating the NERC FAQ page, as well as developing an error checking process to clear up data inconsistencies resulting from the Polar Vortex.

The PC endorsed (with plans to approve the final documents in September) the completion of Data Reporting Instructions (DRI) for the inclusion of wind resources in future GADS reporting.

- The GADSWG expects to collect wind data at the wind farm level categorized by turbine nameplate size, and not at an aggregated Interconnection point or individual wind turbine levels. The GADSWG identified that it may have to exclude several older wind farms from reporting, as their SCADA capabilities may be insufficient for the level of granularity needed by GADS.
- The GADSWG also plans to address solar data collection as early as 2017, following its completion of efforts to collect wind resources on an on-going basis.

Special Protection and Control Subcommittee (SPSC)

SPSC provided an update on analysis of the applicability of load-responsive protective relays on unit auxiliary transformers. The analysis was performed at the request of the NERC BOT, to determine if potential reliability gaps exist, and if NERC should establish new guidelines or if NERC needs to revise NERC Standard PRC-025-1.

- The PC directed the SPSC to generate a white paper to determine if impacts exist to NERC Standard PRC-025-1. The SPSC will seek assistance from the North American Generator Forum to generate this assessment and present it in December.

Reliability Assessment Subcommittee (RAS)

RAS provided an update on the 2014 Long-Term Reliability Assessment. The assessment highlights an increase dependency on natural gas for resource adequacy. The subcommittee continues to review some of the recent feedback provided by the NERC Member Representatives Committee regarding policy guidance and progress. This feedback includes:

- (1) promotion of a coordinated implementation schedule;
- (2) identification of trends that highlight potential risks;
- (3) coordination of challenges at the local, regional, and Interconnection level.

The subcommittee will finalize the report for review and approval at the September PC Meeting.

System Analysis and Modeling Subcommittee (SAMS)

The PC approved the report on Near- and Long-term Planning Studies Models (Southwest Outage Recommendation 9). From its assessment, SAMS identified that existing NERC Standards already address many of the Southwest Outage. SAMS felt a

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NERC-wide criterion for modeling and assessment of sub-100 kV elements is not appropriate due to varying regional differences. SAMS did recommend that:

- TPs and PCs should conduct periodic assessments of sub-100 kV elements to identify their BES reliability impacts.
- TOPs should consider modeling appropriate load sensitivities during seasonal shoulder periods, as well as model projected power transfers and reactive resources that are consistent with reactive and voltage schedules.

SAMS continues to work with the North American Transmission Forum to collaborate on a model validation field trial and standardized component models and system parameters. The collaborative group is also expecting to conduct a workshop in Q2 2015 regarding Fault-Induced Delayed Voltage Recovery and the development of composite load models to accurately capture voltage and dynamic responses to load.

Essential Reliability Services Task Force (ERSTF)

NERC staff along with industry experts have drafted a tutorial style report on the Essential Reliability Services (ERS) and considerations for maintaining the Bulk Power System (BPS) reliability given the significant changes to North America's resource mix. The ERS tutorial addresses one of the key findings and recommendations of NERC's 2013 Long Term Reliability Assessment. It is drafted as a reference guide for the industry, regulators and policy makers and to inform, educate, and build awareness on the reliability ramifications of a changing resource mix.

Project Overview and Schedule

- Tutorial is complete but still needs final approval.
- Wind and solar questions still need to be addressed by the TF.
 - Load and resource balance impact on frequency and voltage support are the questions being looked at.
- The main focus of the TF is on what is important for reliability. Items such as:
 - Operating reserves
 - Frequency response
 - Ramping capability
 - Active power control
 - Reactive control
 - Voltage control
 - Disturbance performance.
- Next steps are to complete the framework, start data collection 4th quarter 2014 with a target completion in 4th quarter 2015.

**NERC Compliance and Certification Committee (CCC)
Report to Southwest Power Pool Regional Entity Trustees
Submitted by Jennifer Flandermeyer, SPP RRO Representative
Senior Manager, Compliance, Kansas City Power & Light
July 28, 2014**

NERC CCC Meeting

- The NERC CCC held its quarterly meeting in Juno Beach, FL on June 4-5, 2014. The materials for this meeting can be found:
 - Agenda: <http://www.nerc.com/comm/CCC/Pages/AgendasHighlightsandMinutes-.aspx>.
 - Minutes and Presentations: <http://www.nerc.com/comm/CCC/Pages/AgendasHighlightsandMinutes-.aspx>.

Administrative

- Compliance and Certification Committee (CCC) Roster Update* and Hearing Procedures Training will be forthcoming for those CCC members that have not completed.

Committee Business

- Committee business was conducted approving various nominations and extensions of terms.
 - CCC approved interim approvals for John Hairston, BPA, representing Federal Utility and Kevin Conway, Intellibind, representing Small-end Use Customer.
 - Interim membership needs were added to August Board consent agenda.
- Ms. Patti Metro, the Vice Chair, provided an update to the committee from the NERC BOT and MRC meetings in May (materials included).
- Ms. Metro provided an overview of topics discussed at the May Board meeting. Refer to the agenda package for Ms. Metro's Board updates from the May 2014 Board meeting. The NERC Board also approved the formation of the Compliance Process and Procedures Subcommittee, 2014 CCC work plan, and the membership agenda items.
- Update was provided on Enterprise Wide Risk Committee (EWRC) Activities.
- Reliability Issues Steering Committee (RISC) Update – Mr. Bilke provided an overview of the RISC committee. Mr. Bilke will be the new CCC representative serving on the RISC Committee. Refer to agenda package for Mr. Bilke's highlights on the RISC items addressed at the May Board meeting.
- CCC 2014 Work Plan – Ms. Metro reported that the NERC Board approved the CCC's work plan. Ms. Metro stated that the CCC will begin to work with members to develop a new work plan, and provide this plan to Board in the November 2014 meeting.

Subcommittee Updates

Nominating Subcommittee

- Refer to agenda package presentation for details on four open positions- one voting and three non-voting.
- Refer to agenda package presentation for details regarding the seven CCC members with terms expiring in Feb 2015.

ERO Monitoring Subcommittee (EROMS)

- Ms. Mechelle Thomas announced that Ms. Kristi Knight is the new Manager within NERC's Internal Audit Department. Ms. Knight introduced herself.
- Ms. Thomas briefed the CCC on the audit objectives, scope, and audit team information. Ms.

- Thomas also discussed the audit timeframes for planning, testing, and reporting. Refer to agenda package presentation for details.
- Ms. Knight discusses auditor training that is required for audit team members and observers. Ms. Knight recommended CCC members do online training in order to work on future activities they have taken the training and can participate. Ms. Knight will send an email to the CCC distribution list.
 - Closeout on status of non-conformance findings from audit of NERC Compliance Monitoring Enforcement Program (“CMEP”) and Organization Registration and Certification Program (“ORCP”)
 - Ms. Thomas provided a brief update on the findings for CMEP and ORCP audits. By end of the year 2014, Ms. Thomas will provide update on open items. Refer to agenda package presentation for details.
 - EROMS reviewed a prior self-certification request to send to NERC. EROMS will send drafted request to ORCS for review and send to NERC by end of June 2014. EROMS will schedule conference calls to accomplish task.
 - For the last four years, the CCC launched the Stakeholder Perception Survey in Fall. For 2014, the next survey is expected to be sent during the first quarter of 2015. EROMS also discussed Regional collaboration for the stakeholder perception survey. In some instances, Regional surveys use the exact same or similar questions from the NERC survey. EROMS would like to reach out to the Regional Entity to coordinate on the survey. Ms. Mineo noted that EROMS should coordinate with NERC, and specifically with Mr. Mike Moon, Senior Director of Regional Entity Coordination.
 - Further, the CCC needs to know whether NERC has sufficient budget for the survey in order to conduct the study for 2014.
 - Ms. Thomas provided an overview of the EWRC. Refer to agenda package materials.
 - Report for Procedure Reviews/Revisions - Protocols CCCPP-001, CCCPP-002, CCCPP-003, and CCCPP-007 are being revised. The CCC approved revisions to CCCPP-001 in December 2013. NERC made several revisions to the term “RMICS” along with several work plan dates and sent back to the EROMs. The CCC will provide another copy of revised CCCPP-001 to NERC legal for review. After NERC review, EROMS will seek full CCC approval of revised CCCPP-001 and will subsequently submit to the NERC Board for approval. EROMS will continue work on revisions to CCCPP-002, CCCPP-003, and CCCPP-007.

Compliance Processes and Procedures Subcommittee (“CPPS”)

- Mr. Goldberg provided an overview of the subcommittee discussions. Refer to the agenda package presentation for talking points discussed during the subcommittee meeting. Highlights included:
- CPPS identifies RSAWs that do not indicate removal of Reliability Standard and Requirements pursuant to the Paragraph 81 initiative. NERC should work to revise RSAWs to reflect the Paragraph 81 proceedings..
- CCC members should bring RSAW revision concerns to the CPPS, which will have a standing agenda item for consideration of such revisions going forward. For example, PRC-026 draft RSAW and its retention provisions may conflict with future RAI efforts.
- CPPS reviewed the RAI oversight plan framework. CPPS and CCC members have concerns about how Regional Entities are conducting audits during the 2014 and 2015 transition to the formal Inherent Risk Assessment and Internal Controls Evaluation without specific guidance from NERC.
- CPPS will not make updates to the internal control documents that currently exist on the NERC website until further developments in RAI occur.

- The CPPS requested that Ms. Mineo take an action item to coordinate with the Region(s) regarding how certain data is being requested via audits versus Section 1600 (of the NERC Rules of Procedure) data requests, specifically for PRC-004.
- NERC should coordinate with the Regions to improve processes for requesting data during audits that may have been previously submitted by entities to meet other reporting requirements. Refer to the agenda package presentation for further details.
- Mr. Goldberg provided an overview of the discussion on the criteria NERC uses to evaluate Regional Entity effectiveness. CPPS discussion focused on developing a risk-based criteria to support NERC’s assessment, reducing the detailed list of criteria, and identifying existing NERC activities that help assess Regional Entity CMEP activities (e.g. NERC CEMP trend reporting to the BOTCC). CPPS intends to recommend revised criteria during the September 2014 meeting. Refer to the agenda package presentation for further talking points.

Organization and Certification Subcommittee (ORCS) – Jennifer Flandermeyer

- Risk-Based Registration Advisory Group Update - Ms. Flandermeyer reviewed the Risk-based Registration (“RBR”) timeline and deliverables. ORCS anticipated future workload on the implementation of RBR. Refer to the agenda package presentation for further details.
- Status of letter for closure of RISC request on Planning Authority/Planning Coordinator issue
- ORCS prepared a letter to RISC discussing actions on ensuring an understanding of Planning Authority and Planning Coordinating areas in the West. WECC presented on its Planning Coordinator issue with the ORCS.
- Resolution of MRRE action item - Ms. Flandermeyer reported on the new ERO process for MRRE, which is ongoing with the ECEMG. The ORCS will work with ECEMG on process. The timeline for completion is 2014. Mr. Kopman discussed a large issue regarding MRRE completion/entity sanctions-related funds. ECEMG decided that Regions involved in the oversight will split sanctions-related funds based on NEL. An agreement document will contain details between the Regions on expectations and processes. Refer to the agenda package presentation for further details.
- ORCS leadership - Keith Comeaux and Ben Engelby will now be the Chair and Vice Chair of ORCS.

CCC Ongoing Projects

- Team 2 - Voluntary vs. Involuntary Internal Controls Whitepaper - Mr. Hoopes provided an update on the action item for the development of a whitepaper for internal controls. Based on the May Board meeting on RAI, Team 2 feels that the ERO clearly addressed that providing internal controls is voluntary. Due to this, this team does not feel that a whitepaper is needed.
- Team 4- Data Retention (Identify Reasonable Record Retention and Sampling) - Mr. Bilke provided an overview of the team and objectives for the team. Mr. Bilke then discussed the survey results and next steps. Refer to the agenda package for further detail.

NERC Staff Reports

- Reliability Assurance Initiative (RAI) Update
 - Regional Pilots (objectives and observations) - Mr. Hedrick provided an update on RAI that included the process to create the Inherent Risk Assessment (IRA) Guide, timeline, risk considerations, and next steps. Specifically, the ERO has a deadline to provide the IRA Guide by June 23.
 - Communication Plan for Registered Entities with 2015 audits – Mr. Hedrick noted that although there is not a formal communication plan as of now, NERC is fully considering feedback on the need to convey timelines and expectations during the interim phases of the RAI Oversight framework.
 - RSAW Update on CCC Input – Mr. Hedrick spoke to the process presented to the MRC for

- review of existing RSAWs. NERC circulated the process for review and has almost finalized.
- MRRE Status Update and Future CCC Input – Mr. Hedrick provided an update on the coordination and process and referred the members of the Committee to Mr. Kopman to address specific questions CCC members may have.

Other Committee Business

- Mr. Hoopes recommended that the Committee consider putting the round table discussion earlier in the agenda to allow more time for members to provide comments from represented sectors. Ms. Metro stated that she will discuss Mr. Hoopes' agenda recommendation with the CCC Executives. Further, Mr. Hoopes noted that he has seen examples of Regional Entities better explaining how they will audit to certain Standards without overstepping requirements stated in the Standard.
- Ms. Flandermeyer spoke to the FERC technical conference on CIP version 5.
- Ms. Nalley reinforced the need for the CCC to understand the processes that are provided and to hold the ERO accountable to the guidance established and published. Regional consistency in application of RAI processes is imperative for successful implementation.
- Mr. Ben Engelby noted a need for further communication with industry on RAI, Standards, and Compliance.
- Mr. Keith Comeaux thanked Terry Bilke for his contributions to the CCC.
- Ms. Mitchell noted that for an audit of FPL, Texas RE changed mitigation plan processes by requesting mitigation plans for areas of concern, suggestions, (ask Patti or Silvia on details of this).
- Ms. Mineo noted that she will be reaching out to NERC, as well as Regional management, to discuss NERC and Regional coordination activities and opportunities with the CCC. Mr. DeVita further stated that he will be assisting Ms. Mineo and the CCC for Board-related activities and is available to provide assistance where needed.

Scheduled CCC meetings as follows

- September 17-18, 2014: Vancouver, BC (Joint Standing Committees location)
- December 3-4, 2014: Phoenix, AZ (APS host location)
- March 3-4, 2015 at NERC Corporate Headquarters in Atlanta, GA
- June 10-11, 2015 at NRECA Conference Center in Arlington, VA

NERC Critical Infrastructure Protection Committee (CIPC) Report to Southwest Power Pool Regional Entity Trustees Submitted by Robert McClanahan, Chair, SPP Critical Infrastructure Protection WG July 18, 2014

NERC CIPC Meeting

- The NERC CIPC held its quarterly meeting in Orlando, FL on June 10-11, 2014. The materials for this meeting can be found at:
 - Agenda:
 - [http://www.nerc.com/comm/CIPC/Agendas%20Highlights%20and%20Minutes%202013/For%20Posting%20-%20\(Word\)%20Agenda%20--%20CIPC%20--%20June%2010-11%202014.pdf](http://www.nerc.com/comm/CIPC/Agendas%20Highlights%20and%20Minutes%202013/For%20Posting%20-%20(Word)%20Agenda%20--%20CIPC%20--%20June%2010-11%202014.pdf)
 - Presentations:
 - <http://www.nerc.com/comm/CIPC/Agendas%20Highlights%20and%20Minutes%202013/Presentations%20--%20June%2010-11,%202014.pdf>
 - Draft Minutes:
 - <http://www.nerc.com/comm/CIPC/Agendas%20Highlights%20and%20Minutes%202013/Draft%20Minutes%20--%20June%2010-11,%202014.pdf>
 - The minutes from the meeting address the majority of topics that were presented at CIPC. The report below provides additional information on several of those items.
- Janice Case of the NERC Board of Trustees welcomed the group. She complimented CIPC on the work that the group has done in support of the NERC Strategic Plan.
- Matt Light of the NERC ES-ISAC discussed several items of interest related to the ES-ISAC:
 - The ES-ISAC formed a Hydra Team to respond to an identified DNP vulnerability. This team differs from most Hydra teams in that it was formed to address a known vulnerability, rather than a known threat. The team will study the vulnerability and make recommendations to vendors on how to address it.
 - Performing Cyber Risk Preparedness Assessments (CRPA), mini-GridExs, led by Lofty Perch (six done last year).
 - The ES-ISAC will manage the Cyber Risk Information Sharing Program (CRISP) going forward. NERC/PNNL determined that an LLC is no longer the best organizational structure. NERC working with PNNL to coordinate agreements between NERC & PNNL, and NERC & Industry.
- Nathan Mitchell of APPA provided an overview of legislative activities related to infrastructure protection on Capitol Hill. No legislation is expected to move in the foreseeable future.
- Tobias Whitney of NERC provided a detailed report on the CIP Version 5 transition program.
 - Six entities with strong compliance culture participated in the CIP Version 5 Transition Study over a 6-8 month period. Currently working to close out those efforts and provide lessons learned.
 - Compliance and Enforcement is working on integrating Version 5 into the Reliability Assurance Initiative to identify means and methods to address self-corrective processes and internal controls.

- During the V3 to V5 transition period, compliance with V5 requirements that are mostly compliant with V3 will be acceptable. Auditors are not trying to play “gotcha”.
- V4 will never be mandatory and enforceable.
- New assets will be subject to V5, not V3.
- If an entity declares early implementation of V5 (proxy for version 3), the ERO will follow CMEP for V5. Will not become enforceable until 4/1/2016, but progress will be monitored.
- NERC is working with Regions to develop a form for Registered Entities’ declaration of transition to V5.
- There will be new TFEs for V5, which are not related to V3. Some V3 TFEs do not have counterparts in V5.
- He reported on several “interpretations” that NERC has made related to the standards. Several CIPC members expressed strong concerns that NERC was making interpretations of standards outside of the approved interpretation process.
- Ed Goff of Duke Energy provided an overview of the updated Cybersecurity Procurement Language for Energy Delivery Systems.
- The Federal Bureau of Investigation (FBI) is working on a Memorandum of Understanding (MOU) for information sharing with the ES-ISAC. They also want to be involved in planning for GridEx III in 2015.
- CIPC Meeting Schedule for remainder of 2014:
 - September 16-17, 2014 – Vancouver, BC
 - December 9-10, 2014 – Atlanta, GA
 - NERC is proposing to hold all future standing committee meetings in Atlanta, GA.

System Protection and Control Subcommittee

May 6-8, 2014 |

Introductions and Chair's Remarks:

There is an effort for the SPCS to become more proactive with initiatives rather than waiting for assignments to be given to the group. If the regions or members have items they would like to have addressed these would be welcomed.

SPCS Leadership Changes:

Rich Quest will be the new vice-chair for a two year term, followed by two years as chair of the SPCS. Phil Winston will take over as chair for Bill Miller this fall.

Power Plant and Transmission System Protection Coordination:

[Present report at June 2014 PC meeting]

The group reviewed the proposed modifications to the SPCS report in response to input from IEEE PSRC. This was a carryover from the last meeting (see notes for summary of changes prior to this meeting). Further modifications were made to the section on breaker failure, and the 59/27TN sections. It was commented that functions such as frequency and volt/hz should be set per the manufacture requirements, and other protection systems coordinated with them. The final modifications to the document will be made and sent to the SPCS for approval before the June presentation to the PC.

Order No. 754 Data Request:

Data for 200kV and above has been reviewed, and shows a reliability concern with protection system redundancy. Less busses (% of tested) failed the test as the voltage decreases, but the conclusion is that there is still a concern at the lower busses. Data for the buses below 100kV is not yet due.

If a standard development is deemed appropriate, the issue may be best addressed within the TPL-004 standard. There should be consideration to the relative risk of component types. SPCS discussion was to possibly add only those components to the TPL standard that produce a higher risk to the reliability. For example having two separate VT secondary windings may not be as critical as relays, aux relays or DC circuitry. Also, the SPCS discussed addressing a three phase fault in the TPL-004 standard as an extreme event, but adding additional study and action plan requirements. This recommendation if carried forward would eventually be given to a drafting team.

Additional Input on Order No. 758 for Project 2007-17.3:

NERC presented two questions from FERC to the SPCS concerning the work on the Order 758 paper. The first one questioned if generator vibration controls/relays should be included in PRC-005. Vibration monitors were listed in the original paper and the SPCS has not changed its position on these devices. The question may be related to an event involving vibration monitoring devices networked for several units. When a router was replaced and reset, it erroneously processed a trip to all the units. The second question was related to breaker arc extinguishers. Should low pressure trip circuitry and/or the arc extinguisher (such as SF6) be included in PRC-005? These devces do not respond to system faults. There was discussion of an event where multiple breakers in a substation tripped on low SF6 due in part to cold weather. Although an alarm was sent prior to trip, there was not sufficient time to respond before reaching the trip level. SPCS plans to prepare a response to both questions with additional justification.

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NERC's goal is to enhance communication with FERC by addressing questions such as these up front rather than requiring NOPRs.

Proposal for Development of a PRC-005 Reference Document:

With the changes to PRC-005 the SPCS discussed providing a visualization tool for what is and what is not part of PRC-005. It was decided this is best left for the drafting team. However SPCS will collect questions and take them to the drafting team for clarification. Questions are to be sent to Bill Miller. Note, protection systems designed to clear faults on BES only are included in the new PRC-005. This is a change from previous versions. For example, unbalance protection on a fused cap bank connected to the BES, may not be part of PRC-005 if the interpretation is that is designed to detect failed cans, not for faults on BES.

SW Outage Recommendation 21: Acceleration Control:

Discussed what feedback could be given to SAMS regarding this topic. Loss of load caused acceleration of generators – tripped generators off. SPS tripped off lines due to load and the generators accelerated. Perhaps this should have been predicted by the model.

PRC-025-1 Status Update: Pending Request for Assistance

During the standard development, there was a minority opinion questioning if relays on the low-side of the unit aux should be included, rather than only those on the high side. PC may be asked for a technical reliability guideline to be written for low side relays and loadability that would likely be passed to the SPCS. Document could include such topics as coordination with motor loads and possible low side over currents less than 150% of the transformer rating.

Future Meetings:

August 5-7, 2014 – Minneapolis

October 21-22 - San Francisco

Protection System Misoperations:

Discussed NPCC question regarding protection system misoperations caused by non-protection related maintenance. The consensus was that if a trip occurs that is directly related to relay maintenance at the time of the maintenance it would not be a misoperation. If a trip occurs that is not directly related to relay maintenance at the time of the maintenance (such communication or digging a trench and cutting cable) this also would not be a reportable misoperation. “Protection system operation that occurs during one-site maintenance, construction and/or commissioning activities is not a misoperation” This will be formally added to the Q/A posting on the NERC website.

Review of PRC Standards Under Development:

PRC-001-2 and PRC-027-1, System Protection Coordination

The last draft received a 67% approval at the first of the year (just missed passing).

FERC expressed a concern with the standard not including internal coordination. The team is discussing the possible inclusion of coordination within a company to be

addressed in the standard. This could possibly be in the form of a requirement to have a

System Protection and Control Subcommittee

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formal procedure to check system coordination with an assessment that the system is coordinated. Preliminary draft includes - Process to verify information required to develop relay settings is accurate, verify the proposed relay settings were provided to and reviewed by the other parties where multiple parties involved, verify identified coordination issues associated with the proposed relay settings were addressed, and verify relay settings were applied.

PRC-002-2, Disturbance Monitoring

The new draft will be posted for 45 day comment and ballot within next few weeks based on comments from the last posting. Requirements have been condensed in the new draft.

PRC-004-3, Protection System Misoperations

This standard should be posted next week for 45 days. Changes include modification of the slow to trip category and investigation for operations cleared by a different TO when a relay fails to operate.

PRC-005-3, Protection System Maintenance and Testing

NERC filed to FERC on 2/14/2014. Few changes except addition of automatic reclosing, and is expected to be approved by FERC by the end of 2014.

PRC-005-X; Protection System Maintenance and Testing

There are two drafting teams with this open. One team is for the sudden pressure relays. The second team is for the DGR (dispersed generation resources) to increase the applicability. The existing requirement is to retain evidence for two cycles which could be 24 years. Plans are to modify this time frame.

PRC-010-1; Undervoltage Load Shedding

UVLS standards moved to PRC-010. The team is proposing a new UVLS Program that will exclude local and centrally controlled UVLS. These would then be addressed by the SPS standard. Also the team is recommending adding UVLS misoperations to PRC-004. Plans are to submit to the BOT end of 2014 or early 2015.

PRC-026-1; Protection System Response to Power Swings

April 25-June 9 posted for comment, based on the SPCS technical paper. Webinar on the 12th to discuss the approach that is in the draft.

Definition of Special Protection System

Informal comment period for SPS definition ended April 9, 2014 based on the SPCS/SAMS proposal. The team will address PRC-012 thru PRC-017 next. Most likely there will be a standalone SPS misoperation standard. The term Remedial Action Scheme (RAS) rather than Special Protection System (SPS) will be used. Categories are being taken out of the definition, and possibly added into the standard, dependent upon the drafting team. (PL,PS,EL,ES). This is to help aid in approval of the definition late 2014 to early 2015.