

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
September 22, 2016
Hilton, Chicago O’Hare

• M I N U T E S •

Agenda Item 1 – Call to Order/Administrative Items

Josh Martin called the meeting to order at 9:00 AM. Members in attendance included: Josh Martin (Director); Larry Altenbaumer (Director); and, Phyllis Bernard (Director). Additional Board members in attendance included Graham Edwards, and Jim Eckelberger. SPP Members present included Mike Wise (GSEC) and Richard Ross (AEP) for a portion of the meeting. SPP staff in attendance was: Michael Desselle, Lauren Krigbaum, Carl Stelly, Erin Cullum, Richard Dillon, Barbara Stroope, Alan McQueen, Paul Suskie, Barbara Sugg, Chris Evans and Ben Bright. Counsel for the MMU, Eric Callisto, was also present (Attendance – Attachment 1).

Larry Altenbaumer moved and Josh Martin seconded adoption of the June 13, 2016 Oversight Committee meeting minutes, July 5, 2016 Executive Session conference call minutes, and July 19, 2016 Executive Session conference call minutes, which were unanimously accepted (Minutes 06/13/2016, 07/05/2016, and 07/19/2016 – Attachment 2).

Agenda Item 2 – Action Items Report

Michael Desselle reviewed the Pending Action Items status.

Agenda Item 3 – Quarterly Activities Report

Internal Audit – Lauren Krigbaum provided the quarterly report (Internal Audit Report – Attachment 3) for the Internal Audit department. She noted that the software licensing audit would be restarted in Q2 2017. Lauren took the opportunity in this agenda item to also share and discuss the 2017 draft annual audit plan noting that Z2 matters had caused delays in auditing some 2016 plan items which are being shifted to the 2017 Plan. In response to the question regarding sufficient resources to accomplish the 2017 Plan, Lauren noted that IA is taking a “risk-based” approach to accomplish the work, but acknowledged that it is an aggressive Plan. Lauren also advised the Committee that KPMG (the current SOC1 auditors) had not identified any exceptions to date.

Compliance – Carl Stelly reviewed the Compliance Department quarterly activities (Compliance Report – Attachment 4). He reported that SERC had issued its final 693 audit report noting no findings with the exception of 3 Open Enforcement items SPP had self-reported prior to the audit. Carl also provided an update on the NERC Assist Team efforts underway.

Market Monitoring Unit – Alan McQueen provided his update on quarterly activities (Market Monitoring Activity Report – Attachment 5). Alan reported that the Annual State of the Market (ASOM) report was filed with FERC in August and presented in September noting that a FERC data-review team is currently reviewing the report. Alan discussed with the Committee the status of the MMU ASOM recommendations (MMU Recommendations Status – Attachment 6). A discussion about Physical Withholding as an alternative to the Day Ahead (DA) Must Offer requirement occurred and the OC expressed their view that the MMU should focus on Market Power abuses.

Agenda Item 5 – Potential Role for Boston Pacific in 2017

Craig Roach (Boston Pacific) advised the Committee that Boston Pacific (BP) would be pleased to develop a “Looking Forward” report and serve as advisor to the Board in 2017 (Continuing Role for Boston Pacific

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Memorandum – Attachment 7). He noted that they would update the most important topics, including: Shale; Clean Power Plan; and, Electric Vehicles. Craig agreed with Jim Eckelberger that batteries seem to be a key to the future. Mike Wise raised the issue of energy efficiency and the decoupling of growth rates and GNP affecting systematic changes in member loads as a strategic issue. Phyllis Bernard raised the issue of utility scale solar. Craig noted that they would address each item.

Finally, to close the loop on Boston Pacific's offer in early summer to assist the Oversight Committee address concerns raised regarding oversight of the MMU as SPP awaited the FERC's final audit report, Josh informed Craig that SPP and the OC had already made the expected modifications to address concerns raised in recent trade publications.

Agenda Item 6 – OC 2016 Self-Assessment

Michael Desselle reviewed the SPP Organizational Group Self- Evaluation/ Assessment (OC Self-Assessment 2015-16 – Attachment 8) with the Committee and discussed items to list for both the Major Accomplishment and Major Pending Issues sections.

Agenda Item 7 – Discussion of Frequently Constrained Areas and VOM

Josh Martin introduced the topic noting the Mike Wise and Richard Ross asked that the issue be discussed prompting the Board Chairman to ask that the OC consider the topic. The MMU's Counsel, Eric Callisto, noted the MMU was looking forward to hearing comments from stakeholders, including the MWG.

Mike Wise noted that the issue was raised in the July Board meeting when the MMU presented its Annual State of the Market (ASOM) report. On figure 2-8 on Page 17 of the ASOM, the MMU stated that Combustion Turbines (CTs) in the SPP are able to recover their avoidable cost in the market. Mike noted that GSEC, as a market participant with CTs, disagrees with the MMU (Mike Wise Memo – Attachment 9). Mike proceeded to explain why GSEC disagrees. Mike presented to the OC depictions of GSEC's Mustang Unit resource stacking, Clearings, RUCs, starts, and other unit and cost statistics. He further described GSEC's view of short-run marginal cost. He described the financial dilemma GSEC faces and highlighted for the OC the Policy issues at issue on this subject, including:

- These maintenance charges: are they not actual incurred charges dependent upon using the unit for an additional unit of marginal production?
- Not including these maintenance charges as SRMC distorts the market price.
- Owners of the units are subsidizing the marketplace with their units.
- Price signal to generators is "good luck, and hopefully you can recover your actual costs in the market with LMP price variances"
- Why shouldn't each start of the unit for market commitment purposes (RUC or DAM) be allowed to be made whole by the market?

In response to the question from Josh, "that'... if Variable O&M (VOM) can't be considered Short-term marginal cost, is there some other way to recover it?", Mike noted that ERCOT, CalISO and other markets allow it.

Chairman Eckelberger noted that there needs to be room for new thinking. Phyllis and Larry agreed. Josh thanked all for the healthy discussion and education on the matter. He suggested further discussions at the MWG needed to occur and Jim advised all to overcome the semantics of the defined terms and get to business processes that work to resolve the concerns. Jim suggested that a timeline be established and Josh asked for a status report at its next meeting.

Agenda Item 8 – New Action Items

Action items are:

- Staff secretaries to review FERC audit recommendations and modify scope accordingly;
- MWG to provide status report on VOM matter; and,
- Staff to revise and update OC scope and to propose 2017 meeting schedule.

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Agenda Item 9 – Future Meetings

The Committee discussed the remaining meetings for 2016.

Adjournment

Josh Martin thanked everyone for participating, adjourned the meeting and went into Executive Session.

Executive Session 1

The Committee met in Executive Session with RTO staff and discussed IEP, Compliance and Security matters.

Executive Session 2

The Committee met in Executive Session with MMU staff only and discussed MMU matters.

Executive Session 3

The Committee Members only met in Executive Session and discussed MMU personnel matters.

Respectfully Submitted,

Michael Desselle



OVERSIGHT COMMITTEE MEETING

September 22, 2016

Hilton Chicago O'Hare

• **A G E N D A** •

9:00 a.m. – 3:00 p.m. CDT

1. Call to Order/Administrative ItemsJosh Martin
2. Action Items Report.....Michael Desselle
3. Update on Current Activities
 - a. Internal Audit.....Lauren Krigbaum
 - b. Compliance.....Carl Stelly
 - c. Market Monitoring Unit Alan McQueen
 - d. Order 1000..... Ben Bright
4. Internal AuditLauren Krigbaum
 - a. Draft 2017 Audit Plan
5. Potential Role for Boston Pacific in 2017..... Craig Roach
6. OC 2016 Self-Assessment.....Josh Martin
7. Discussion of Frequently Constrained Areas and VOM Alan McQueen
8. New Action ItemsMichael Desselle
9. Future MeetingsJosh Martin

2016

December 5

Little Rock

2017

TBD

10. Executive Session 1 (Visitors Excluded)..... Oversight Committee and RTO Staff
11. Executive Session 2 (OC Members & MMU only) Oversight Committee and MMU Secretary
12. Executive Session 3 (OC Members only to discuss MMU personnel matters, including compensation)..... Oversight Committee

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
 October 22, 2016
 Hilton Chicago O'Hare

• ATTENDANCE LIST •

Name	System
Michael Desselde ✓	SPP
MICHAEL WISE ✓	GSEC
Ben Bright ✓	SPP
Barbara Sugg ✓	SPP
Barbara Stroppe ✓	SPP MMU
Alan McQueen ✓	SPP MMU
Eric Callisto ✓	Michael Best
GRAHAM EDWARDS ✓	SPP
JOSH MARTIN ✓	SPP
Larry Rosenbaum ✓	SPP
Jim Eckelberger ✓	SPP Director
Chris Evans ✓	SPP
Carl Stelly ✓	SPP
Lauren Kribaum ✓	SPP
Richard Dillon ✓	SPP
Paul Siskie ✓	SPP
Phyllis Bernard ✓	SPP Director
Richard Ross (by phone) ✓	

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
June 13, 2016
SPP Corporate Campus, Little Rock, Arkansas

• M I N U T E S •

Agenda Item 1 – Call to Order/Administrative Items

Josh Martin called the meeting to order at 7:30 AM. Members in attendance included: Josh Martin (Director); Larry Altenbaumer (Director); and, Phyllis Bernard (Director). Additional Board members in attendance included Graham Edwards, Bruce Scherr, Harry Skilton, Larry Altenbaumer and Julian Brix. SPP Members present included Jennifer Flandermeyer (KCPL) and Robert McLanahan (AECC). SPP staff in attendance was: Michael Desselle, Lauren Krigbaum, Carl Stelly, Erin Cullum, Richard Dillon, Barbara Stroope, Alan McQueen, Paul Suskie and Carl Monroe.

Larry Altenbaumer moved and Phyllis Bernard seconded adoption of the March 29, 2016 Oversight Committee meeting minutes which were unanimously accepted (Minutes 03/29/2016 – Attachment 1).

Agenda Item 2 – Action Items Report

Michael Desselle reviewed the Pending Action Items status. He provided updates to the Committee's previous inquiries regarding two aspects of SPP's Emergency Management & Business Continuity (EMBC) Plan and provided a status report on the revision to SPP's Acceptable Use Policy.

Agenda Item 3 – Annual State of the Market Report (ASOM)

Alan McQueen presented the MMU's Preliminary ASOM. Alan responded to several questions regarding Capacity shortage statistics and base-load coal plant operating observations. Alan responded to an inquiry as to whether the MMU has detected "bad players" or cheating and described the actions the MMU would take in such circumstances. Regarding CFTC developments, he also responded that the MMU would not advise to change market protocols in response to the ongoing contemplation by the CFTC to allow rights of private action. Richard Dillon noted that SPP does not have retail open access and that SPP's members are risk averse as evidenced by the facts that nearly 100% of load is committed in the Day Ahead market, and that load also picks up the congestion rights.

Alan reviewed the status of the 2014 ASOM recommendations and noted that of the ten recommendations, three are fully completed and are awaiting implementation (1. JOU MWP Manipulation, 2. TCR & ARR system availability, and 3. TCR bidding at EESL); four are well underway (1. Over-collected losses, 2. Quick Start Logic, 3. Ramp shortage pricing, and 4. Mitigation conduct thresholds); and, three still need significant work (1. DA Must-offer, 2. Physical withholding penalty, and 3. Outage reporting ARR/TCR). With respect to Over-collected losses there was a philosophical discussion about the term "gaming" and Alan pledged to provide more detail as to what constitutes "gaming" at the next meeting. Alan also committed to a status report on the Physical Withholding Penalty efforts at the OC's next meeting.

Alan discussed the MMU's 2015 recommendation to phase out all non-dispatchable wind and responded to a series of questions about that recommendation.

Alan will present the Final ASOM to the Board at its July meeting.

Agenda Item 4 – Quarterly Activities Report

Compliance – Carl Stelly reviewed the Compliance Department quarterly activities (Compliance Report – Attachment 2). He reported that SERC completed its 693 audit and had no findings on the 96 requirements in that audit. Carl also provided a status update on SPP’s progress for July 1 compliance to CIP5.

Market Monitoring Unit – Alan McQueen provided his update on quarterly activities (Market Monitoring Activity Report – Attachment 3).

Internal Audit – Lauren Krigbaum provided the quarterly report (Internal Audit Report – Attachment 4) for the Internal Audit department. She noted that the software licensing audit was on hold to restart in Q3/4. She also described for the committee how Internal Audit maintains its independence within the organization. Finally, Lauren reported that KPMG has been re-engaged for three years to perform than annual SOC1 audits. The Committee asked Lauren to describe the difference between SOC1 Controls audit and other audits at its next meeting.

Agenda Item 5 – New Action Items

Action items are:

- Lauren Krigbaum to compare SOC1 Controls audit versus other audits;
- MMU to provide “gaming” clarification; and,
- MMU to begin providing quarterly status reviews of ASOM recommendations.

Adjournment

Josh Martin thanked everyone for participating and adjourned the meeting at 11AM and went into Executive Session.

Executive Session

The Committee met in Executive Session and discussed Security matters.

Respectfully Submitted,

Michael Desselle

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
Executive Session
July 5, 2016
SPP Offices, Little Rock, AR & Phone Conference

• M I N U T E S •

Agenda Item 1 – Call to Order

Josh Martin called the meeting to order at 3 PM. Members in attendance on the phone were: Josh Martin (Director); Phyllis Bernard (Director), Alan McQueen (MMU Director), and Eric Callisto (Michael Best & Friedrich, MMU external legal counsel). Attendees in the SPP offices were: Paul Suskie (Executive VP of Regulatory and Legal) and Barbara Stroope (MMU Manager). Paul Suskie was invited to the first part of the meeting by mutual agreement of Josh Martin and Alan McQueen.

Josh Martin recommended having two distinct parts of this meeting; the first part will include all attendees, and the second part of the meeting will be an MMU-only executive session with Oversight Committee members. Barbara Stroope will take meeting minutes for both sessions.

Agenda Item 2 – SPP & MMU Joint Response to FERC Audit Report

SPP and the MMU prepared a joint response to the FERC Audit Report. The Oversight Committee reviewed the response and discussed plans for moving forward. The response will be submitted to FERC on June 7, 2016.

Adjournment

Josh Martin thanked everyone for participating and adjourned the Executive Session. He asked the SPP staff (i.e., Paul Suskie) to leave the room in order to conduct the MMU-Only Executive Session.

Respectfully Submitted,

Barbara Stroope
Secretary for MMU-Only Executive Sessions of the Oversight Committee

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
July 19, 2016
Executive Session Conference Call

• M I N U T E S •

Agenda Item 1 – Call to Order/Administrative Items

Josh Martin called the meeting to order at 1 PM. Members in attendance by phone included: Josh Martin (Director); Larry Altenbaumer (Director); and, Phyllis Bernard (Director). Additional Board members in attendance included Graham Edwards. The call had two distinct sessions. SPP MMU staff in attendance for the “MMU-only” session was Barbara Stroope and Alan McQueen. Staff in attendance for the following session was Michael Desselle. Josh reminded the Committee that the purpose of the meeting was to address agenda matters not covered during the June 13, 2016 OC meeting due to time limitations.

Agenda Item 2 – MMU Matters

The Committee discussed MMU matters including the MMU budget for 2017 and the plan for replacing the Director of the MMU when Alan McQueen retires. Barbara Stroope will provide detailed meeting minutes for the MMU-only session to the committee.

Agenda Item 3 – SPP Matters

Michael Desselle provided an update on open enforcement items. Regarding the questions raised about repeat violations and accountability, Graham Edwards noted that the culture of compliance SPP is instilling starts with the Oversight Committee. He noted that it is important and critical for the OC, and the full Board, to send the message that it expects a culture of compliance, with accountability, to be implemented at SPP.

Adjournment

Josh Martin thanked everyone for participating and adjourned the Executive Sessions at 2:50 PM.

Respectfully Submitted,

Michael Desselle

Southwest Power Pool, Inc.

INTERNAL AUDIT

Report to the Oversight Committee

September 22, 2016

Staffing

- The Internal Audit department continues to be fully staffed.
- Business Process Improvement (BPI) Program Manager – duties assumed by existing SPP employee.

Activity Update

- 2015-2016 Audit Schedule – Updated (see attached)
- Audits/Assessments Completed Since Last Meeting:

- **SPP Security Awareness Audit**

This audit is one of a continuing series of audit tests designed to test compliance with SPP's corporate policies/procedures and SPP employee general security awareness. Additional tests that will be conducted include: periodic security awareness quizzes, USB devices and social engineering (e.g. requests for information and phishing emails).

See attached for summary.

- **Off We Go LLC (Fixed Cost Reimbursements)**

On July 10, 2009, the SPP Finance Committee approved a process to reimburse the SPP CEO and CFO for fixed costs associated with aircraft owned by Off We Go, LLC, a limited liability company whose sole members are the SPP CEO and CFO. The aircraft owned by Off We Go, LLC is frequently used by SPP to transport SPP employees on SPP business. In general terms the approved process results in SPP reimbursing 85% of the fixed costs associated with the aircraft. Fixed costs associated with the aircraft include: depreciation, interest, maps/charts, annual inspection, insurance, property taxes and hangar rent.

Fixed cost reimbursements made to Off We Go, LLC for the period September 15, 2015 to September 1, 2016 were reviewed by the Internal Audit department. Expense reports and supporting documentation for each reimbursement were obtained from SPP Accounting and reviewed for appropriateness and accuracy.

See attached for summary.

- Audits Currently in Process:

- **Tariff Administration**

The primary objectives of the audit are to: obtain an overview of the various functions completed by the Tariff Administration department, industry standards that must be followed, and downstream data users; review the policies and procedures in place for functions performed by Tariff Administration and evaluate them for thorough coverage to protect the interest of SPP, its members and customers; examine internal controls for adequate design and effective

operation; confirm required documentation/evidence is stored accurately and completely; determine downstream consumers of data are receiving data accurately and timely. The audit is in the testing phase.

- **SPP Modeling Control Self-Assessment (CSA)**

The primary objectives of the CSA are for participants to: build a map of all SPP models/interfaces; develop "Fit for Purpose Statement" for each model by user; conduct CSA workshops with subject matter experts to develop/proof process maps; conduct CSA workshops with subject matter experts to identify risks and controls (including backup, versioning, system access and data change monitoring), develop/proof validations; CSA workshops to review internal and external coordination/communication; CSA workshops to review preparation for MOD 33 NERC Steady-State and Dynamic System Model Validation (in effect July 1, 2017). This audit is in the testing phase.

- **Identity Access Management**

The primary objective of this review is to examine all physical and logical access for all employees and contractors. Logical access will be limited to user account domain, VPN, digital certificate and firewall access. Particular areas of concentration will be the following; access provisioning/de-provisioning processes, access provisioning/de-provisioning documentation, access provisioning/de-provisioning approvals, access change monitoring, periodic reviews of physical and logical user access, visitor and forgotten badge access, current SPP policies/procedures related to Identity Access Management (e.g. Physical Access, User Account Management, Password, Personnel Risk Assessment, Etc.). This audit is in the testing phase.

- **Transmission Congestion Rights Markets Processes**

The primary objectives of audit are to: obtain an overview of the various functions completed by the Congestion Hedging department, compliance regulations that must be followed, upstream data dependencies, and downstream data users; review the policies and procedures in place for functions performed by Congestion Hedging and evaluate them for thorough coverage to protect the interests of SPP, its members and customers; examine internal controls for adequate design and effective operation; confirm required documentation/evidence is stored accurately and completely; review systems and system access related to the Congestion Hedging operations and processes; confirm exceptions to the process such as GFAs, LSE, LT TSR, etc. are documented and processes are evidenced to verify compliance and accuracy. This audit is in the testing phase.

- **Credit Stack (Z2) Internal Readiness**

The primary objectives of the audit are to determine: the adequacy of proposed business processes and system business requirements in meeting SPP governing documents, project and protocol requirements, as well as federal and business requirements; the functionality of the systems and related components used by the Z2 Credit Stacking team as evidenced by documented testing results and deployment testing; that system interfaces have been thoroughly tested to ensure that they are functioning as intended; that complete and adequate documentation exists and up-to-date for all existing processes; that a business continuity plan is documented and up-to-date prior to the go live date to ensure continuity of operations; that proposed control objectives and activities (business

and SOC1) are designed to address the risks associated with proposed business processes and related IT systems and are properly evidenced by supporting documentation if applicable. This audit is in the testing phase.

- o **Gas Day Internal Readiness**

The primary objectives of the audit are to determine: business processes have been updated to reflect the revised market timelines; the functionality of the system(s) and related components as evidenced by documented testing results; that appropriate business continuity plans have been up-to-dated prior to the go-live date to ensure continuity of operations; that up-stream and down-stream system interfaces have been thoroughly tested to ensure that they are functioning as intended; that control activities (business and SOC1) are designed to address the risks associated with the revised business processes and related IT systems and are properly evidenced by supporting documentation. This audit is in the testing phase.

- Audits Currently in Planning:
 - o Data Management/Changes CSA
 - o Application Access
 - o Emergency Management Business Continuity (EMBC)
 - o Balancing Authority
 - o Credit Stack (Z2) Historical true up
- Upcoming Audits:
 - o SPP Security Awareness
 - o Contract Management
 - o Enhanced Combined Cycle (ECC) Internal Readiness
 - o Study Deposits, Invoicing and Customer Refund Tracking, Phase 2
- Other Activities:
 - o Controls audit (SSAE 16/SOC1) work:
 - 2016 SOC 1 Type 2 Audit:
 - o Completion of periodic control activity reviews:
 - ❖ SOC 1 Audit period November 1, 2015 – October 31, 2016
 - 45 completed to date, 16 in process (80 total Business control activities, 13 observation only)
 - 24 completed to date, 0 in process (30 total General IT control activities, 6 observation only)
 - o Facilitated/coordinated external auditors' on-site visit in July and August 2016
 - ❖ Communicated and acted as liaison between KPMG and control owners
 - ❖ Collected and reviewed audit items requested
 - ❖ Coordinated process walkthrough meetings for external auditors and control owners
 - o Facilitated/coordinated external auditor's on-site visit in September 2016
 - ❖ Collected and reviewed audit items requested
 - ❖ Reviewed and updated SPP's portion of audit report narrative



- Other consulting/advising:
 - Credit Stack (Z2) process – including Z2 SOC 1 practice Walkthroughs
 - Transmission Service Market Improvement team
 - Controls Training for the Compliance Department
 - MOD-033 consulting with SPP Engineering
 - Systematic Inventive Thinking workshops

Respectfully submitted,

Lauren Krigbaum
Director, Internal Audit



Southwest Power Pool, Inc. (SPP)
RTO Compliance Department
Oversight Report – Q3 2016

PUBLIC

Compliance Report

Compliance Department Structure and Staffing:

As part of the continuing effort to build on the recommendations obtained from two independent reviews of the SPP Compliance Program, the Compliance Department transitioned one FTE into the Standards Development group. Additionally, one FTE shifted from the Compliance Group into the Legal/Regulatory group along with the Tariff compliance responsibilities. In line with the recommendations, three additional FTEs have been or will be hired to assist with the NERC Standards compliance-related responsibilities of the Compliance Department as shown below:

Manager of Compliance (hired June 1, 2016):

To manage the Compliance Group and assist with the development of a Quality Assurance focus in this group.

Lead CIP Analyst (hired July 1, 2016):

To provide more CIP expertise in Standards Development and with the oversight and Quality Assurance on all NERC CIP-related compliance responsibilities.

Senior Engineer/Analyst (expected hire; October, 2016):

To provide more Planning expertise in oversight and Quality Assurance on all NERC Planning-related compliance responsibilities.

Operations & Planning (O&P):

On May 9 – 11, the O&P Audit team was on-site to complete the audit. Subsequent to that visit, SPP received a final report which included “No Findings” on all requirements, with the exception of three (3) Open Enforcement items which were self-reported to SERC by SPP. That report was accepted by SPP.

Compliance staff are currently focused on identifying the O&P Standards that are at highest compliance risk to SPP and are scheduling the spot checks for those Standards for 2017.

Critical Infrastructure and Protection (CIP):

CIP v5 Transition:

On February 25, 2016 FERC issued an Order granting an extension of time and deferring the implementation of the CIP v5 Reliability Standards from April 1 to July 1, 2016. SPP staff worked diligently to complete all of the work necessary to complete its transition to the CIP v5 Standards. As of July 1, 2016, SPP staff were confident the necessary processes and procedures were in place and implemented to ensure SPP’s compliance with the CIP v5 Standards.



Southwest Power Pool, Inc. (SPP)
RTO Compliance Department
Oversight Report – Q3 2016

PUBLIC

Upcoming Dates of Importance:

September 19, 2016:

RCWG Meeting, Skirvin Hotel, Oklahoma City, OK

October 26, 2016:

SPP to host multi-regional Mis-Operations Summit at its offices in Little Rock

October 31 – November 3, 2016 (postponed):

SPP Reliability Standards CIP Audit, on-site

Reliability Compliance Working Group (RCWG):

The RCWG's third quarter meeting of 2016 will be in Oklahoma City, on September 19, 2016. The agenda includes waivers and escalation process discussions by SPP staff, a discussion of the upcoming Mis-Operations Summit, discussions of the CIPWG and EAWG, and other technical discussions.

Respectfully submitted,

Carl Stelly
Director of Compliance



MARKET MONITORING ACTIVITY REPORT TO THE OVERSIGHT COMMITTEE

22 September 2016

I. MMU Staffing

- MMU restructured the organization, see attached Org Chart below. We now have one manager and two supervisors. Nick Parker is the Supervisor of Market Analytics and reports to the director. Nick is an engineer with nine years of experience at SPP much of it in Market Design. Greg Sorenson is the Supervisor of Market Surveillance and he reports to manager, Barbara Stroope. Greg is certified as a professional engineer and has six years of experience with SPP's Regional Entity along with a M.S. in Electrical Engineering. They are a great addition to the MMU team.
- The MMU currently has one open staff position and one position that will become open with the transfer of Kevin Warren to the SPP IT Data Services group. We appreciate all that Kevin has done in the MMU over the last five years. He will be a valuable asset to SPP and the MMU in his new position. We are in the process of making an offer to fill the open position and have several strong candidates for the position that will be open with Kevin Warren's departure.

II. Federal Energy Regulatory Commission (FERC)

- The MMU continues to have conference calls with FERC staff every other week. Discussions focus on Integrated Marketplace screens, FERC NOPRs, proposed market rule changes, market inefficiencies, possible market rule violations, and potential market manipulation.
- The FERC audit team issued their final report on July 15, 2016. SPP and the MMU jointly responded to the findings on August 12, 2016 with an implementation plan in compliance with the Commission's order. SPP and the MMU have already satisfied most of the audit findings as noted in the audit report and in SPP response. SPP and the MMU will be filing quarterly status reports with the FERC audit group documenting completion of components of the implementation plan. The first quarterly report is due in January 2017.

III. Market Surveillance and Reporting

- The MMU published: 1) Monthly Market Reports through the MWG for the months of June, July and August and 2) Quarterly State of the Market report for Summer 2016
- The 2015 Annual State of the Market (ASOM) draft report was completed and presented to the SPP Board of Directors in July. The final report was filed at FERC on August 25. The MMU made a presentation of the results to FERC staff on September 1.



IV. Market Analytics

- The MMU will continue to work with SPP and the MWG regarding the three recommendations of 2014 ASOM that were carried over to present year and one additional recommendation in 2015 ASOM. Of the three 2014 recommendations, a proposal for Allocation of Over-Collected Losses developed by the SPP staff is being reviewed at the MWG. Another recommendation, Manipulation of Make Whole Payments is currently being pursued by the Market Design staff and, to date, a significant progress has been obtained. The recommendation regarding removal of Day-Ahead Must Offer and replacement of it with a Physical Withholding Penalty is being addressed by the MMU by developing a refined new proposal to be brought to the MWG as early as possible. MMU's 2015 ASOM recommendation targeting the reduction of the amount of wind capacity that is non-dispatchable will be closely followed by the MMU as it is expected to improve efficiency in the SPP market.
- The MMU has closed several behavior studies and continue to have several open studies.

V. Other Items

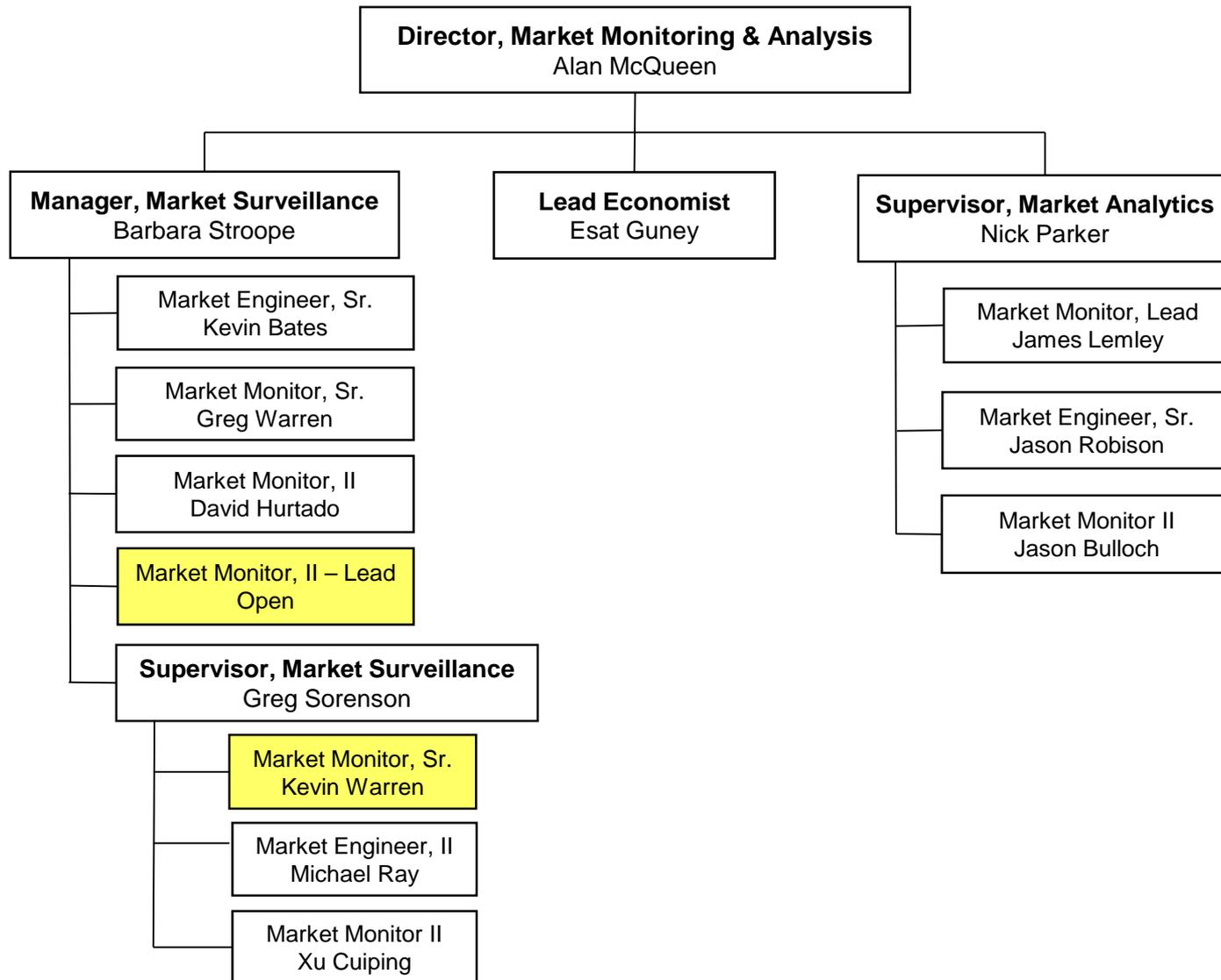
- The Board of Directors' review of the MMU performed by Potomac Economics nears completion. We expect results to be discussed during the September Oversight Committee meeting.
- The MMU will be hosting the Energy Intermarket Surveillance Group conference in early November. Market Monitors from around the world attend the conference to share case studies and best practices.

Respectfully submitted

Alan McQueen

Director, Market Monitoring and Analysis

Market Monitoring and Analysis



MARKET MONITORING UNIT RECOMMENDATIONS – STATUS REPORT FOR THE OVERSIGHT COMMITTEE

Topic	Status	Description	Comments	Origination Date
<u>Closed Items</u>				
Quick Start Logic	Resolved	Do not subject QS to RUC commitment	<ul style="list-style-type: none"> Significantly improved 	2015
	Withdrawn	No make whole payments	<ul style="list-style-type: none"> Significantly reduced 	2015
JOU Make Whole Payments	Resolved	Design flaw regarding MWP for Combined Resources Option	<ul style="list-style-type: none"> Expected implementation date - first qtr. 2017 	2015
Ramp-Constrained Shortage Pricing	Resolved	Subject ramp shortages to price scarcity	<ul style="list-style-type: none"> Expected implementation date - first qtr. 2017 	2015
ARR System Availability	Resolved	Over-allocation of ARRs in DA market	<ul style="list-style-type: none"> Annual changes implemented in June 2016 Monthly concerns to be reassessed 	2015
Transmission Outages	Withdrawn	Require outage reporting to be 45 days out	<ul style="list-style-type: none"> MMU is assessing effectiveness of ARR change 	2015
TCR EESL	Resolved	Block TCR bids at EESL points	<ul style="list-style-type: none"> Expected implementation date - first qtr. 2017 	2014
Mitigation Conduct Thresholds	Withdrawn	Increase conduct thresholds for mitigation	<ul style="list-style-type: none"> Dramatic reduction in mitigation frequency 	2015
<u>Open Items</u>				
Allocation of Over-Collected Losses	MWG Discussion	Potential manipulation of existing allocation of methodology	<ul style="list-style-type: none"> SPP staff has developed a proposal that appears to address this concern MWG reviewing the proposal 	2015
Manipulation of MWP (J.P. Morgan Case)	MWG Discussion	1. Crossing midnight hour	<ul style="list-style-type: none"> SPP Market Design is leading this effort, RR189 	2013
		2. Fixed regulation bids	<ul style="list-style-type: none"> MMU has some open concerns 	
		3. Local reliability OOME	<ul style="list-style-type: none"> Consideration being given to only monitoring 	
DA Must-Offer	MMU Development	Numerous flaws to existing must offer tariff provision	<ul style="list-style-type: none"> MMU recommends replacing Must-Offer with a Physical Withholding Penalty Making progress 	2015
Non-Dispatchable Wind	New	Reduce the amount of wind capacity that is non-dispatchable	<ul style="list-style-type: none"> Reducing the volume of non-dispatchable wind will improve the efficiency of the market 	2016

MEMORANDUM

September 14, 2016

TO: Josh Martin, Chairman, SPP Oversight Committee
Michael Desselle, Staff Secretary, SPP Oversight Committee

FROM: Craig Roach, Ph.D.
Vincent Musco

SUBJECT: Continuing Role for Boston Pacific in 2017

We hope all is well with you. The purpose of this short memo is to ask whether the Board would like Boston Pacific Company, Inc. to continue in its role as an independent advisor in the coming year. This would be our thirteenth year serving the Board—as always, thank you for that.

For 2016, the *Looking Forward Report* was our only requested effort. The Report appeared to be well received by the Board and Members, and we were happy to help contribute to the Board's consideration of long-term, strategic issues. Boston Pacific would be pleased to prepare a *Looking Forward Report* in 2017. Our second task was to serve as an advisor to the Board as needed – there were no efforts requested under this second task in 2016, but we would be happy to be on call once again. We explain both of these tasks in more detail below. If you would like to discuss this at your upcoming meeting (September 22), we would be happy to call in at any time convenient for you.

TASK 1: LOOKING FORWARD REPORT

We would provide our seventh annual *Looking Forward Report* to help the Board with its long-term strategic planning efforts. The *Looking Forward Report* will focus on broad market and regulatory events that (a) potentially could have a significant impact on SPP's markets and/or (b) could require the Board's special attention. As always, we will develop the list of topics in consultation with the Board to ensure that we focus our Report on issues of greatest interest. Such topics could include:

- (a) A discussion of the 800-page Energy Policy Modernization Act, which was passed by the Senate this summer, and its potential impact on the electricity business
- (b) A discussion of emerging technologies beyond today's wind and solar. Bill Gates provides some examples including his bets on new nuclear power – the Traveling Wave Reactor, – artificial photosynthesis to produce hydrogen fuel, and engineering to pull carbon from the air.

- (c) Update on environmental regulations, especially President Obama's Clean Power Plan and the debate on a carbon tax plus state and regional efforts to comply with the Regional Haze Rule
- (d) Update on the Shale Gas Revolution, including new forecasts from the EIA which show cuts in short-term production, as well as new regulations on fracking at the state and federal level and new LNG shipping routes from Texas to Europe
- (e) Further developments in decentralization and the new utility business model, including discussion of energy storage, community solar, and innovative financing and ratemaking, with new reports by ICF, Analysis Group, and others
- (f) Updates on electric vehicles, including driverless cars efforts by Uber, Elon Musk's latest moves, and a decentralization of charging stations to help reduce range anxiety

We would present the Report at both the Spring 2017 Oversight Committee meeting and the April 2017 Board of Directors/Members Committee meeting.

TASK 2: ADVISE BOARD (AS NEEDED)

As always, we can continue with the role of advising the Board as needed at its request. If the Board sees specific challenges arise during the term of the contract that were not apparent before, please tell us and we would help address those issues. We would be happy to lend our expertise to the Board, as needed.

NEXT STEPS

Please let us know whether and how you would like to proceed. Thank you for your consideration.

**SPP Organizational Group Self-Evaluation/Assessment
(August 2015 – July 2016)**

GROUP NAME: **Oversight Committee (OC)**

THE CHARTER/SCOPE HAS BEEN REVIEWED IN THE PAST YEAR: **No**

MEMBER ROSTER/ATTENDANCE:

Member	Company	# Present	# Absent
Altenbaumer, Larry	Director	6	3
Bernard, Phyllis	Director	9	0
*Edwards, Graham	Director	3	1
Martin, Josh (Chairman)	Director	9	0
Michael Desselle	Staff Secretary	9	0

*Only on Committee for part of the assessment period.

AVERAGE OVERALL ATTENDANCE (INCLUDING NON-GROUP MEMBERS): 12

MEETINGS HELD TO DATE: Live: 4 Teleconference: 5

AVERAGE LENGTH OF MEETINGS: 2:04

NUMBER OF VOTES TAKEN: 4

***MEETING COST(S): \$47,958.20**

** Meeting costs include hotel expenses (room rental, A/V, food and beverage), estimate of teleconference expenses, and Director fees for attendance.*

MAJOR ACCOMPLISHMENTS/ISSUES ADDRESSED BY THE GROUP:

1. Structural separation of OC meetings to ensure independence of MMU matters
2. Revised and strengthened OC Policy Statement on MMU Oversight
3. IEP Process (education, selection, independence)
4. FERC Audit support

MAJOR PENDING ISSUES BEFORE THE GROUP:

1. Increased focus on Cyber and Physical Security
2. Revise OC Scope statement
3. Increase OC Board membership and frequency of meetings
4. Oversight of MMU Administrative functions

The issue identified at the July SPP Board of Director's meeting was directly related to the MMU's chart in the ASOM report (Figure 2-8 on page 17) that said CTs in the SPP are able to recover their avoidable costs in the market. As a market participants with CTs we clearly do not agree with the MMU. This issue has surfaced at various working groups and resulted in discussion at the FERC, too. The central issue at hand is whether or not the major maintenance of CTs should be included as Short Run Marginal Costs in what the MMU deems acceptable for offer curves (normal and mitigated). We believe that these units as described by the manufacturer (in my case GE) are not hours driven, but are dependent upon the number of starts for major maintenance. Therefore, the default VOM costs for CTs do not adequately allow for the full recovery of VOM costs. Many times when a CT is called on for reliability (Reliability Unit Commitment) or RUCed, the market LMP does not adequately compensate for this cost and the market does not make the unit whole for that run. Absent the Integrated Market wanting to run the unit, our load does not actually need the unit as an energy hedge (the majority of the time). This results in the major maintenance occurring at an advanced pace, too. For example, prior to the IM, Mustang Station Unit #4 was started approximately 20 times a year, afterwards that increased by a factor of 3 or more.

FERC in an order said they wanted us to work with the MMU to resolve this issue. Included below is the paragraph discussing this point in their September 22, 2015 order in **Docket No. ER15-2268-000**.

We also note that both Joint Filing Group and Golden Spread assert that the major maintenance costs that they seek to include as components of mitigated offers are short-run marginal costs,¹⁶⁵ and that Joint Filing Group asserts that long-term service agreement costs are short-run marginal costs.¹⁶⁶ SPP's currently effective Tariff already allows for the inclusion of short-run marginal costs, exclusive of fixed costs, in the VOM cost component of mitigated offers.¹⁶⁷ To the extent that Joint Filing Group and Golden Spread are alleging that the SPP Market Monitor is incorrectly interpreting and applying the currently effective Tariff, these allegations do not warrant approval of SPP's proposal. Further, with respect to the arguments of Joint Filing Group and Golden Spread that the SPP Market Monitor's interpretation of short-run marginal cost is resulting in an inappropriate under-recovery of costs, and with respect to Joint Filing Group's arguments regarding cost shifting from Integrated Marketplace buyers to captive wholesale and retail customers, we note that adequately reflecting short-run marginal cost, exclusive of fixed costs, in mitigated offers should address concerns about under-recovery of cost and any potential for inappropriate cost shifting. We encourage Joint Filing Group and Golden Spread to work with the SPP Market Monitor to appropriately categorize the VOM costs that reflect short-run marginal costs, particularly for the units at Golden Spread's Mustang, Antelope, and Elk Stations, with consideration to the characteristics of those units as described in the affidavits submitted by Golden Spread to support its comments.

We, at GSEC, have not completed this initiative encouraged by the FERC.

Thanks,
Mike

