

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
October 6, 2017
Westin Hilton Head, S.C.

• M I N U T E S •

Agenda Item 1 – Call to Order/Administrative Items

Josh Martin called the meeting to order at 8:00 AM. Members in attendance included: Josh Martin (Director); Phyllis Bernard (Director); Harry Skilton (Director); Graham Edwards (Director); and, Bruce Scherr (Director). SPP staff in attendance included: Michael Desselle, Carl Stelly, Barbara Stroope, Keith Collins, Barbara Sugg, Sam Ellis, Ben Bright, Scott Smith, and Paul Suskie (Attendance List – Attachment 1).

Graham Edwards moved and Bruce Scherr seconded adoption of the August 1, 2017 Oversight Committee meeting minutes, which were unanimously accepted (Minutes 8/1/2017 – Attachment 2).

Josh added an additional discussion item.

Agenda Item 2 – Action Items Report

Michael Desselle reviewed the Pending Action Items status, noting that one item will remain on the Action Item report for the next meeting (Internal Audit's role in auditing the MMU).

Agenda Item 3 – Update on Current Activities

Compliance – Carl Stelly reviewed the Compliance Department report (Compliance Report – Attachment 3). He reported on staffing levels noting a vacancy in the department for which he is currently seeking applicants. Carl presented (Compliance Presentation – Attachment 4) and discussed with the Committee: staffing, the department's 2018 budget, standards developments, departmental initiatives, and upcoming events. Regarding staffing, the OC asked for regular reporting on SPP RE transition matters.

MMU – Keith Collins provided a brief update (MMU Activity Report – Attachment 5). Keith apprised the Committee on the status of the MMU portal launch date (November 9). With respect to the market design flaw previously identified, Keith reported that two Revision Requests (RR) s approved by the MWG paired in combination would address the MMU's concerns. Phyllis Bernard asked if the MMU has reviewed the DOE's grid resiliency pricing NOPR. Keith noted that the MMU has reviewed the proposed rulemaking and will be providing comments. Mike Wise noted that the issue will be an agenda item topic of discussion at the upcoming SPC meeting and encouraged Keith to participate.

Agenda Item 4 – Emergency Management/Business Continuity Report

Discussed in Executive Session.

Agenda Item 5 – Western Markets – Market Power and Market-Based Rates Authority

Keith Collins also presented to the Committee market power concerns in existing western markets (Market Power Concerns – Attachment 6). During those discussions, the OC expressed a view that the OC and the MMU needed to understand the MWTG timeline with respect to the areas of their oversight responsibilities. A view was expressed that it would be beneficial to have WECC expertise from a compliance perspective involved in the MWTG integration effort.

Agenda Item 6 – Potential 2018 Role for Bates White

Craig Roach (Bates White) led a discussion on potential topics for consideration in their proposed engagement to deliver a "Looking Forward Report" (Potential Topics for 2018 Looking Forward Report – Attachment 7). Additional topics for Bates/White consideration, included:

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

- Business case for SPP Market in energy storage?
- RTO evolution due to obsolescence; underlying features that might change the industry
- Removal of the construct that RTOs will continue to exist; insight into risk exposure
- Beneficial electrification

Craig characterized these additional topics as “Second battle of the currents” and in response to a concern expressed about the public nature of such a report, he noted that the report is not a place to opine on the inevitability of such occurrences, but of the potential for such.

Agenda Item 7 – OC 2017 Self-Assessment

Josh led a discussion on the major accomplishments and pending issues of the Committee. Staff revised to assessment to reflect that feedback (OC Self-Assessment – Attachment 8).

Additional Agenda Item – Finance Committee request

Michael Desselle reported that the Finance Committee chair has requested that the OC take responsibility to receive and review the SOC-1 audit report and to oversee mitigation of any exceptions or qualifications associated with the SOC-1 audit report. He noted that the Finance Committee would retain responsibility for engaging firms auditing SPP’s controls. The Committee was agreeable to the requested change and staff will work to reflect the scope change in the OC charter.

Agenda Item 8 – Action Items

Action items are:

- Staff to update OC on MWTG timelines and any MMU impacts;
- Staff to provide RE transition updates;
- Staff to provide update on Internal audit process for Internal audits of the MMU;
- Staff to submit modified self-assessment; and,
- Staff to propose OC scope change related to Finance Committee request regarding SOC-1 audit.

Agenda Item 9 – Future Meetings

There was no discussion of future meetings.

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 and MMU staff to discuss security reports, staff’s recommendation for the pool of 2018 IEP panelists, and other MMU matters. The OC also directed staff regarding engagement of Bates White.

Executive Session 2

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

Respectfully Submitted,

Michael Desselle



OVERSIGHT COMMITTEE MEETING

October 6, 2016

Westin Hilton Head, S.C.

• A G E N D A •

8:00 a.m. – 3:00 p.m. EDT

- 1. Call to Order/Administrative ItemsJosh Martin
- 2. Action Items Report.....Michael Desselle
- 3. Update on Current Activities
 - Compliance Carl Stelly
 - Market Monitoring Unit..... Keith Collins
- 4. Emergency Management/Business Continuity Report Scott Smith
- 5. Western Markets – Market Power and Market-Based Rates Authority Keith Collins
- 6. Potential 2018 Role for Bates/White Craig Roach
- 7. OC 2017 Self-Assessment.....Josh Martin
- 8. Action Items.....Michael Desselle
- 9. Future MeetingsJosh Martin

2017

Monday, December 4, 2017 7AM – 1PM SPP, Little Rock

2018

- Monday, January 29, 2018 7AM – 1PM Oklahoma City
- Tuesday, March 27, 2018 8AM – 3PM Bates/White, DC
- Monday, June 11, 2018 7AM – 1PM SPP, Little Rock
- Wednesday, August 1, 2018 8AM – 3PM Omaha, NE
- Monday, October 29, 2018 7AM – 1PM SPP, Little Rock
- Monday, December 3, 2018 7AM – 1PM SPP, Little Rock

- 10. Executive Session 1 (Visitors Excluded)..... Oversight Committee and RTO Staff
- 11. Executive Session 2 (OC Members & MMU only) Oversight Committee and MMU Secretary

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
 October 6, 2017
 Westin Hilton Head, SC

• ATTENDANCE LIST •

Name	System
Michael Desselle	SPP
JOSH MARTIN	DIRECTOR
Scott Switz	SPP
Ben Bright	SPP
Carl Stelly	SPP
Sam Wh	SPP
Paul Suskie	SPP
Mike Wise	BSEC
JULIAN BRIX	SPP DIRECTOR
Harvey Skilton	SPP Director
GRAHAM EDWARDS	SPP Director
Bruce Scherr	SPP Director
Keith Collins	SPP MMU
Phyllis Bernard	SPP Director
Barbara Stroope	SPP MMU
Barbara Sugg	SPP staff

Southwest Power Pool, Inc.
OVERSIGHT COMMITTEE MEETING
August 1, 2017
DFW AAdmirals Club, Dallas, TX

• M I N U T E S •

Agenda Item 1 – Call to Order/Administrative Items

Josh Martin called the meeting to order at 8:00 AM. Members in attendance included: Josh Martin (Director); Phyllis Bernard (Director); Harry Skilton (Director); Graham Edwards (Director); and, Bruce Scherr (Director). SPP staff in attendance included: Michael Desselle, Lauren Krigbaum, Barbara Stroope, Keith Collins, Barbara Sugg, Sam Ellis, and Paul Suskie (Attendance List – Attachment 1).

Harry Skilton moved and Graham Edwards seconded adoption of the June 12, 2017 Oversight Committee meeting minutes, which were unanimously accepted (Minutes 6/12/2017 – Attachment 2).

Agenda Item 2 – Action Items Report

Michael Desselle reviewed the Pending Action Items status, noting that Keith Collins would discuss it during the MMU Executive Session.

Agenda Item 3 – Quarterly Activities Report

Internal Audit – Lauren Krigbaum reviewed the Internal Audit Department report (Internal Audit Report – Attachment 3). She reported on staffing levels noting a vacancy in the department for which she is currently seeking applicants. She shared with the OC the SPP Policy Committee’s draft “stepping away” definition. With respect to an upcoming audit of SPP’s Emergency Management and Business Continuity (EMBC) Plan, Lauren explained ongoing discussions with the Risk Management department about the timing of that audit. Barbara Sugg and Michael Desselle each clarified the Business Continuity components of the EMBC Plan. Staff will discuss further at the next OC meeting. The Oversight Committee questioned the appropriateness of Internal Audit’s role in auditing the Market Monitoring Unit (MMU). Paul Suskie noted that it would be an administrative function that FERC would not have concerns about. Staff was directed to work out the process with Counsel and the MMU. Lauren briefed the OC on its security awareness audit efforts and the OC noted its support for monitoring security awareness. Lastly, Lauren apprised the OC of Internal Audit’s 2018 Budget and Plans.

MMU – Keith Collins provided a brief update (MMU Activity Report – Attachment 4). Additionally, Keith informed the Committee that the FERC is closing out its compliance review from its recent audit of SPP’s MMU independence.

Agenda Item 4 – Action Items

Action items are:

- Tee up EMBC Discussion at next OC Meeting;
- Develop process for IA review of MMU.

Agenda Item 6 – Future Meetings

The Committee discussed the remaining 2017 meetings and plans for the October OC meeting.

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 and MMU staff to discuss security activity and MMU-related Tariff and Good Catch matters. The Committee decided that rather than attend the Grid-Ex, a

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

briefing following the exercise was most appropriate. Further, the Committee provided specific direction to staff regarding security matters. Finally, the Committee approved Keith Collins as the designee for the MMU regarding Good Catch and self-report matters.

Executive Session 2

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

Respectfully Submitted,

Michael Desselle



Southwest Power Pool, Inc. (SPP)
RTO Compliance Department
Oversight Report – October 6, 2017

PUBLIC

Compliance Report

Compliance Structure and Staffing:

The Compliance group continues efforts to build the knowledgeable, skilled staff required to meet objectives detailed in the SPP Internal Compliance Program. The following reflects the current staffing needs:

Lead Standards Coordinator (expected hire on or around November 15, 2017):

To backfill the position previously held by Manager, Reliability Standards (Standards Development). This position will be the lead in SPP's representation in the industry standards development efforts. This effort is critical to ensure SPP has accurate perspective from the industry regarding new and changing NERC Reliability Standards and to provide feedback to the industry during the process from SPP and its members.

Lead Compliance Engineer/Specialist (expected hire on or around November 1, 2017):

To backfill an existing open position, providing subject matter expertise in fulfilling NERC Operations-related compliance responsibilities.

Senior CIP Specialist (expected hire on or around November 1, 2017):

To backfill an existing open position, providing subject matter expertise in fulfilling NERC CIP-related compliance responsibilities.

Senior/Lead CIP Technical Specialist (NEW) (expected hire on or around January 1, 2018):

To provide more CIP technical expertise in Standards Development and implementation of new and changing requirements in the oversight and Quality Assurance of SPP's adherence to all NERC CIP-related compliance responsibilities.

2018 Budget:

The budget for the Compliance department increased over 2017, due primarily to the staffing changes noted above and potential changes in the Compliance responsibilities and expansion beyond SERC and NERC activities (e.g., MRO, WECC, RFC). Outside Services includes placeholders for a mock CIP Audit and further contractor assistance with GRC implementation:

Standards Development Staff Activities Update:

The Standards Development staff helped facilitate the review of 23 NERC Compliance Standards which became effective in 2017. This effort highlighted the first full year under the new Standards Implementation Process started in late 2016. The primary goal of the process is to identify future Standards, or changes to Standards, that are seen to impact SPP. It also helps identify early in the process those Standards or Requirements that may require interaction between SPP and members in order to facilitate early and effective working group collaboration. The process also furthers the Standards Development engagement with SPP staff and member SMEs in calls designed to provide feedback on new or changing NERC Reliability Standards and to solicit feedback from SPP staff and members to the industry throughout the commenting and balloting periods. Though the process requires further maturation, it has already identified ways to improve the implementation efforts and to better ensure SPP's compliance with future enforceable NERC Standards.



Southwest Power Pool, Inc. (SPP)
RTO Compliance Department
Oversight Report – October 6, 2017

PUBLIC

Compliance Department Staff Activities Update:

PMU Project:

The PMU project has been contemplated in three phases. Phase 1 is the only phase approved by SPP and considered in the budget. However, PMU data presents challenges for SPP RTO and for members, for Operations and for CIP Standards. SPP staff are working to address the compliance risk concerns raised internally and with members through the RCWG. SPP will prepare a compliance assessments that tries to consider the compliance impacts throughout the life of the project and build in controls to ensure the membership is aware in a timely fashion the shift in projected use of the PMU data in order to allow them time to address their expected compliance risks before the data use is changed.

2017 Risk Assessment:

The 2017 SPP Compliance Risk Assessment is scheduled to conclude in October, 2017. This is an internal risk assessment performed by SPP Compliance Department Staff, and will determine a schedule for performing spot checks, Reliability Standards Audit Worksheet (RSAW) reviews, or internal controls review based on the outcome of the risk assessment for every NERC Compliance Standard requirement for which SPP is responsible.

- Spot Checks are used to review actual evidence that could be requested during an Audit (basically, this represents a mini audit).
- The RSAW reviews are designed to review the RSAWs that would potentially be used during an audit. The RSAWs contain a narrative to identify methods SPP staff will use to comply with those Standards and requirements.
- Internal controls reviews could be conducted if the Risk Assessment indicated the risk is lower or the Standard hasn't been reviewed recently.

Internal Compliance Program:

The foundational document for SPP RTO Compliance activities identifies the Compliance roles and responsibilities and leads to internal compliance controls that will ultimately form the foundation for Internal Audit compliance review. Staff are continuing the effort to formalize internal processes to support the Internal Compliance Program and develop associated internal controls. Compliance staff are also very heavily involved in the Standards Implementation process, currently facilitated by the Reliability Standards staff.

NATF Peer Review:

The North American Transmission Forum (NATF) peer review originally scheduled for September 11 – 14, 2017 has been rescheduled for March, 2018.

Internal Controls Development:

Efforts are continuing with assisting the Business Units on their development of internal controls to ensure compliance with the NERC Reliability Standards, including Operations, IT, Facilities, HR, and Engineering Planning. The controls will be the primary inputs to the initial rollout of the GRC tool.



Southwest Power Pool, Inc. (SPP)
RTO Compliance Department
Oversight Report – October 6, 2017

PUBLIC

Open Enforcement Action Items:

Compliance staff continue to monitor the progress of the remaining mitigation plans and to ensure their timely completion. Staff continues to work with Business Units on submittals to the SPP Good Catch (GC) program. SPP Compliance staff are continuing their investigations to determine whether the GC submittals constitute non-compliance and subsequent Self-Reports to the ERO. Even if they do not result in Self-reports efforts continue in identifying and closing gaps in processes and procedures and identifying additional controls to be put in place to help prevent any identified compliance risks.

Governance Risk Compliance (GRC) Tool:

SPP is in the Analysis and Design phase with its vendor, RSA Archer, for implementation of a GRC tool. The tool is designed to help manage the compliance-related tasks and associated controls inventory. The expected solution will give much needed insight into the SPP compliance controls program and to provide notifications and escalations to staff and management in a timely fashion. This will assist SPP Compliance staff in its oversight role in identifying any tasks, if left otherwise incomplete, could lead to non-compliance. Compliance staff are, along with each individual Quality Control group within each major Business Unit, working to develop the controls that will serve as inputs to the GRC tool. Ultimately, the tool is also envisioned to be used outside of NERC Compliance in areas such as controls management for other regulatory requirements and for enterprise risk assessment and management.

Upcoming Dates of Importance:

Misoperations Summit

October 19, 2017, 8:00AM – 5:00PM
KCPL Offices, Kansas City, MO

SPP RE Fall Workshop

October 24, 2017, 8:00 a.m. – 5:00 p.m.
October 25, 2017, 8:00 a.m. – 12:00 p.m.
Omni Dallas Hotel at Park West, Dallas, TX

SPP RTO Compliance Forum

October 25, 2017, 1:00 p.m. – 5:00 p.m.
Omni Dallas Hotel at Park West, Dallas, TX

RCWG Meeting

October 26, 2017, 8:00 a.m. – 5:00 p.m.
October 27, 2017, 8:00 a.m. – 11:00 a.m.
Omni Dallas Hotel at Park West, Dallas, TX

Respectfully submitted,

Carl Stelly
Director, RTO Compliance

SPP RTO Compliance

October 6, 2017

Staffing

- Lead Standards Coordinator (expected hire on or around November 15, 2017):
- Lead Compliance Engineer/Specialist (accepted offer to start October 16, 2017):
- Senior CIP Specialist (expected hire on or around November 1, 2017):
- Senior/Lead CIP Technical Specialist (NEW) (expected hire on or around January 1, 2018):
- Contemplating:
 - Adding another headcount to Standards Development
 - Adding staff to focus on CMEP (Self-reports, mitigation, etc.)

2018 Compliance Budget

- **Continuing Education**
 - Continuing professional education
- **Travel**
 - SERC, MRO, WECC, NERC, working groups
- **Administrative**
 - Professional organization dues
 - Professional licenses
- **Meetings (RTO Compliance Forum)**
- **Outside Services (CIP Mock Audit, GRC)**

PMU Project

- PMU project approved for Phase 1
 - No compliance impacts assessed
 - Still SPP and member concerns about the risk associated with PMU data and how it'll be used
- Phase 2 and Phase 3, not approved yet
- Member compliance concerns:
 - Change in data usage
 - Phase 3 w/o timely notifications
- RCWG requested compliance assessment

Reliability Standards

- Standards Implementation Process
 - Initiated in late 2016
- 23 NERC Standards were effective and reviewed under SIP in 2017

January 1, 2017 Effective NERC Standards

- IRO-010-2
- TOP-003-2

April 1, 2017

Effective NERC Standards

- EOP-004-3
- EOP-011-1
- FAC-010-3
- FAC-011-3
- IRO-001-4
- IRO-002-4
- IRO-008-2
- IRO-014-3
- IRO-017-1
- MOD-030-3
- PRC-015-1
- PRC-016-1
- PRC-017-1
- PRC-023-4
- TOP-001-3
- TOP-002-4

April 2, 2017

Effective NERC Standards

- PRC-004-5
- PRC-010-1

July 1, 2017

Effective NERC Standards

- MOD-033-1

October 1, 2017

Effective NERC Standards

- COM-001-3
- IRO-002-5

2017 Risk Assessment

- October 2017
- Generates risk rating for all NERC Standards and requirements SPP is responsible for
- Ratings will feed 2018 SPP Annual Compliance Plan
 - Spot checks
 - RSAW Reviews
 - Process and controls reviews

Internal Compliance Program

- Defines roles and responsibilities of SPP RTO Compliance
- Published 7/19/2017
- Developing internal compliance controls

NATF Peer Review

- North American Transmission Forum
- Compliance program review
- Scheduled for Sept. 11 – 14, 2017
- Rescheduled for March, 2018
 - Hurricane Irma

Internal Controls Development

- Ongoing effort with all Business Units
- Will provide bulk of input to GRC tool

Open Enforcement Action Items

- 16 remaining mitigation steps in progress
- Scheduled to complete in December 2018
- Continue to investigate all Good Catch items submitted to determine:
 - Root Causes
 - Self-reports
 - Opportunities for process or controls improvements

Governance Risk Compliance Tool

- RSA Archer vendor selected
- NERC Compliance rollout in late 2017
 - Manage controls inventories
 - Visibility into tasks that are due and at risk
 - Notifications and escalations
 - Dashboards and reports for individual users, groups, departments, organizations
- Potential to begin expanding outside NERC Compliance in 2018
 - SOC 1
 - Tariff
 - Enterprise Risk Management

Internal Compliance Program

- **Misoperations Summit**
 - October 19, 2017, 8:00AM – 5:00PM
 - KCPL Offices, Kansas City, MO
- **SPP RE Fall Workshop**
 - October 24, 2017, 8:00 a.m. – 5:00 p.m.
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 - Omni Dallas Hotel at Park West, Dallas, TX

MARKET MONITORING ACTIVITY REPORT TO THE OVERSIGHT COMMITTEE

October 6, 2017

I. MMU Staffing

- The MMU has 16 authorized positions; 15 are filled and one Economist position remains posted. Several interviews are currently in progress. We recently filled a Market Monitor II position with an internal hire from another SPP department.

II. Federal Energy Regulatory Commission (FERC)

- The MMU continues to have conference calls with FERC staff every other week. As usual, discussions have focused on MMU recommendations to the Board of Directors as part of the Annual State of the Market Reports (Annual Report) and potential market manipulation cases. Other topics include market screens, FERC NOPRs, proposed market rule changes not related to Annual Report recommendations, market inefficiencies, price spikes because of wind forecast errors, and possible market rule violations.
- The MMU has fully implemented all recommendations from the 2015/2016 FERC audit. FERC staff officially closed the audit in August 2017.
- FERC hosted a meeting of Market Monitors in September 2017. This is the second meeting of the year, and it focused on the referral process.
- The MMU filed comments in support of the RTO's proposed changes to the day-ahead must offer. The MMU suggested that there be consideration of a physical withholding penalty. Alternatively, the MMU recommended an 18 month sunset review.

III. Market Surveillance and Reporting

- The MMU published: 1) Monthly Market Reports through the Market Working Group for the months of July through September 2017. We're currently working on the Quarterly State of the Market reports for summer 2017 which will include several incremental improvements and additions from our usual report.
- Keith Collins presented the 2016 Annual State of the Market report at the July board meeting and at FERC. The MMU also notified all state commissions via email of the posted report and where to find it.
- The surveillance team has implemented several process improvements to screens and tracking processes which will increase efficiency and allow more time for in-depth analysis. Some of these changes are incremental improvements related to Potomac Economics recommendations.
- In November, the MMU will launch a new tool that will collect tariff-required data from market participants for our surveillance purposes. Market participants will use the tool to enter any new resource-specific data for plant deliveries, consumption and stocks, generator details and costs, mitigated offer methodology (fuel policies), day-ahead must offer data, and opportunity cost calculation inputs.

IV. Market Analytics

- MMU Recommendations to SPP Board of Directors – the MMU continues to work with SPP staff and the Market Working Group regarding open recommendations.
 - The 2014 Annual Report recommendation on the use of fixed regulation bids in receiving excess regulation deployment adjustment charge has been closed. After extensive review and discussion, both the MMU and the RTO have jointly determined that a broader issue exists. The MMU is working with the RTO to develop a solution for the problem. Currently two revision requests (RR242 and RR243) which will adequately address this as a pair have been approved by the MWG. RR242 addresses how regulation is deployed, while RR243 addresses how the regulation deployment adjustment charge is calculated.
 - The remaining MMU recommendation from the 2014 Annual Report is related to manipulation of make whole payments when minimum run time commitments are in excess of two days. A MMU proposal was rejected at the Market Working Group, so the MMU appealed the decision at the July MOPC. The MOPC remanded the topic back to the Market Working Group for review. This topic is still being discussed internally at the RTO and is tentatively scheduled to be on the agenda at the October Market Working Group.
 - In the 2015 Annual Report, the MMU recommended requiring non-dispatchable resources (NDVERs) to become dispatchable (DVER). A market participant (Westar) submitted a revision request that required NDVERs to register as DVERs if 33% of the resource was upgraded or replaced. The MMU does not think this meets the intent of our recommendation. In response, the MMU submitted comments that recommend requiring all NDVERs, with the exception of type 1 and 2 turbines, to convert to DVERs within a specified date. This topic is still open and being discussed at the Market Working Group.

- Proposals for changes to mitigation
 - Revision request (RR214) proposed to allow a 10 percent adder to the mitigated offer in cases where a resource is mitigated. The MMU does not agree with a flat 10 percent adder with the current structural design of mitigation. However, the MMU has agreed, during initial discussions at the Market Working Group, that inclusion of quantifiable fuel related costs may be granted on a per resource level. The MMU worked with the RTO to develop RR239 to address the issue more specifically. RR239 adds language to explicitly allow for fuel risk uncertainty to be included in the mitigated offer. The Market Working Group has approved RR239 and it will be on the agenda at the October MOPC.
 - The MMU submitted RR231 which is also related to mitigation. RR231 addresses issues with resources committed for local reliability (i.e. voltage support). RR231 replaces the threshold for mitigation of locally committed resources with a systematic offer cap. The Market Working Group has approved RR231 and it will be on the agenda at the October MOPC.
 - The MMU and the Market Working Group continue to discuss variable major maintenance costs. A draft revision request was discussed at the last MWG that would allow for major maintenance to be considered in the mitigated no-load offer and the mitigated start-up offer. An official revision request is expected to be submitted for the October Market Working Group.

V. Other Items

- Several members of the MMU attended the Energy Intermarket Surveillance Group conference in late September. MMU attendees presented on four topics: 1) integration of government policy with market designs (Keith Collins), 2) market power and mitigation (Cuiping Xu), 3) case studies (Nick Parker), and 4) market design (Serhat Guney).
- The MMU is planning a technical writing workshop for staff in January 2018. This workshop will be facilitated by a professional technical writer who has worked with two other market monitoring groups in the past.

Respectfully submitted

Keith N. Collins

Executive Director, Market Monitoring and Analysis

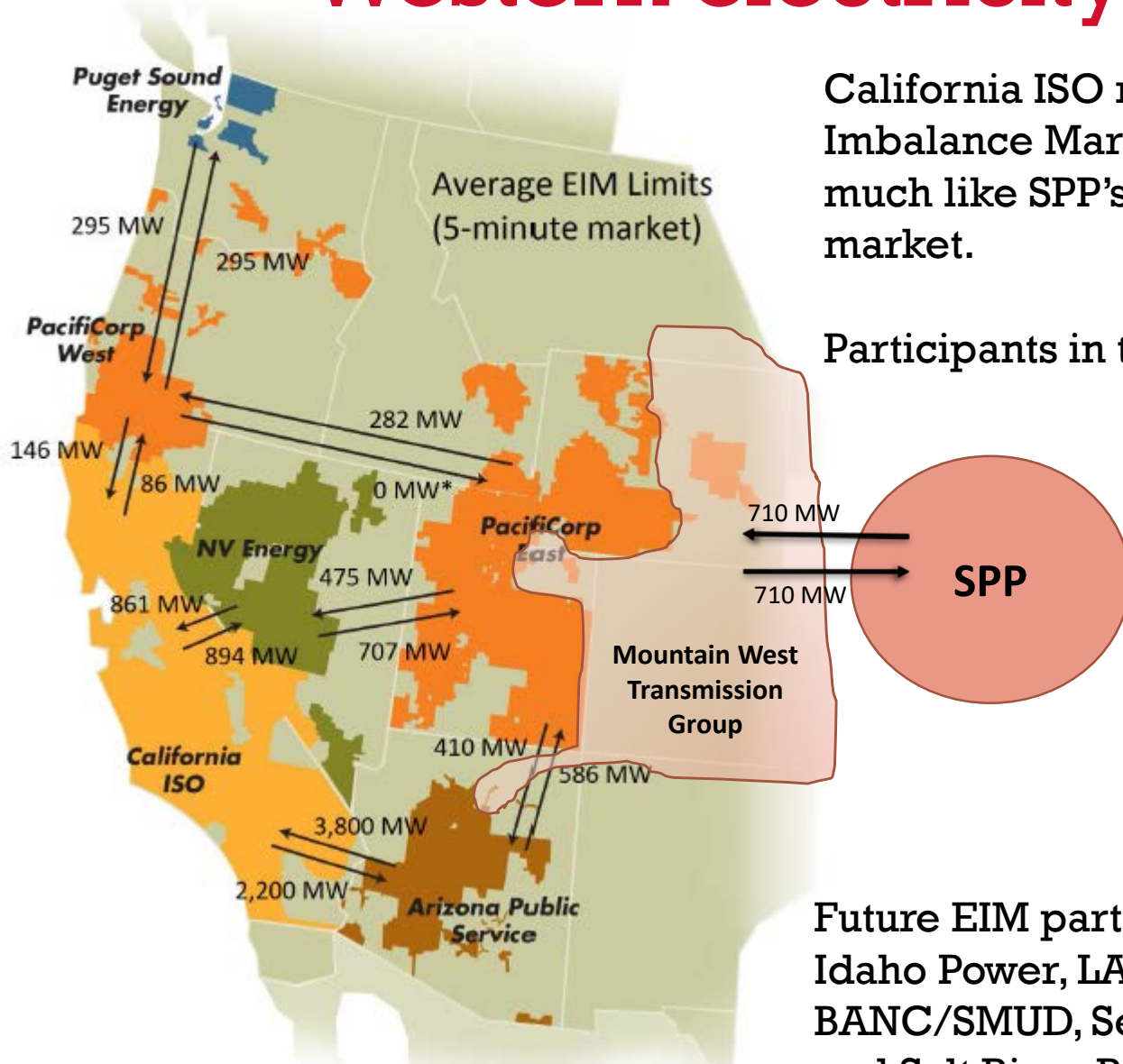
Market Power Concerns in Existing Western Markets

Oversight Committee Meeting

October 6, 2017

Keith Collins, MMU Executive Director

Western electricity markets



California ISO runs an Energy Imbalance Market (EIM) that is much like SPP's former EIS market.

Participants in the EIM include:

- PacifiCorp
- NV Energy
- Arizona Public Service
- Puget Sound Energy
- Portland General Electric (Fall 2017)

Future EIM participants include: Idaho Power, LADWP, Powerex BANC/SMUD, Seattle City Light and Salt River Project

CAISO EIM market: Characteristics

- Real-time imbalance market only with no day-ahead market.
- Voluntary participation with no explicit requirement to bid available generation into market.
- Only about 160 MW of non-utility independent generation in the market.

CAISO EIM market: FERC market power concerns

- × Market participants did not demonstrate that they did not have market power in their own areas when congested with other regions.
- × Physical withholding is a concern when there is no must offer requirement.
- × All internal transmission constraints need to be enforced to allow for effective mitigation.
- × The mitigation process needs to correctly identify and mitigate when appropriate.

CAISO EIM market: Allowed participant bidding

Market-based bids:

- ✓ Puget Sound Energy
- ✓ Portland General Electric

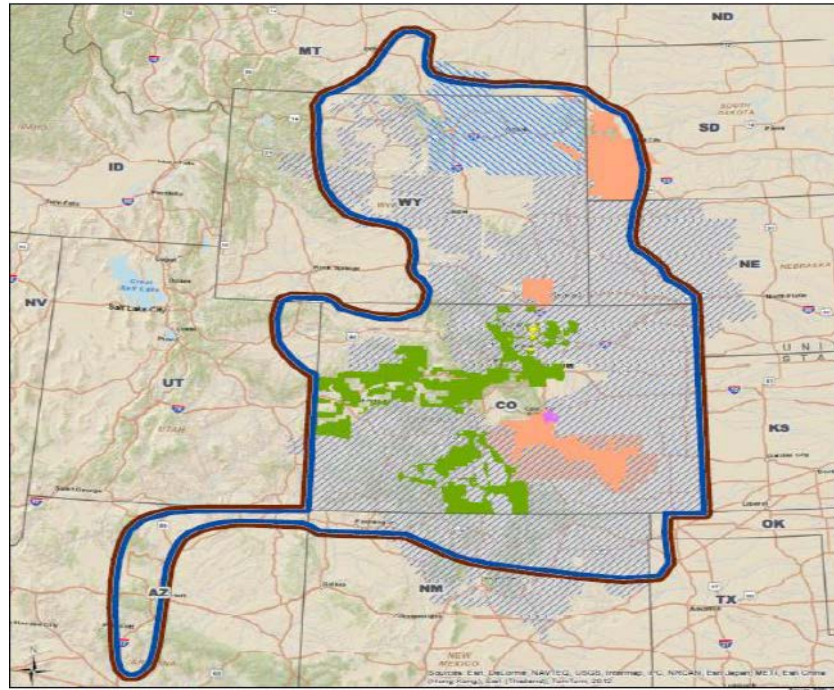
Cost-based bids:

- × PacifiCorp
- × NV Energy
- × Arizona Public Service

CAISO EIM market: FERC market power clarifications

- If entity is in EIM market for a year or longer, it can:
 - ✓ Perform analysis of frequently binding constraints that limit imports into each area; and
 - ✓ Identify any price separation with other areas.
- If analysis indicates that a submarket does not exist, then no need for further market power study.

Mountain West Transmission Group



Mountain West Transmission Group
Membership Areas

Source: Presentation by Tim Vigil, RT Merchant Manager, Western Area Power Administration on Mountain West Transmission Group, p. 3:

http://www.wspp.org/filestorage/04_21_17_spring_joint_oc_meeting_gs_t_vigil_presentation.pdf.

Participants in the MWTG include:

- Public Service Company of Colorado: 5,700 MW
- Tri-State Cooperative: 2,800 MW
- Basin Cooperative West: ~2,300 MW
- Black Hills: 1,000 MW
- Colorado Springs Utilities: 900 MW (load)
- WAPA Rocky Mountain: 800 MW
- Platte River Power Authority: 600 MW

Differences between CAISO EIM and Mountain West

- ✓ The Mountain West area is a collection of multiple entities like SPP.
- ✓ The Mountain West area will have both day-ahead and real-time markets.
- ✓ There is an SPP requirement to offer in all generation into the residual unit commitment processes and real-time market.
- ✓ SPP plans to enforce all transmission constraints in an independent manner.
- ✓ The SPP mitigation process differs from the CAISO EIM approach.

Market power questions with Mountain West integration

- How frequently will transmission congestion occur into Mountain West on DC ties from SPP's eastern systems?
- What will the congestion patterns look like within the Mountain West transmission system?
- How will FERC consider market power in the absence of a day-ahead must offer requirement in SPP?
- Do market power concerns change if there is further expansion in the West?

Next steps for Market Monitoring Unit

Should Mountain West join the SPP market, the Market Monitoring Unit will:

- ✓ Obtain data and information necessary to do an assessment of market power.
- ✓ Perform a study of both inter-regional and intra-regional market power.
- ✓ Present any concerns and provide recommendations.
- ✓ Consider implications of market power for potential future expansion.

Options for dealing with potential market power concerns

- Develop an approach that gradually reduces/loosens mitigation.
- Evaluate frequently constrained areas more often.

POTENTIAL TOPICS FOR THE 2018 LOOKING FORWARD REPORT

As always, 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. We will develop the list of topics in consultation with the Board to ensure that we focus our Report on issues of greatest interest. To kick-start a potential list of topics, we provide the following list of potential topics for discussion at the Oversight Committee's October 6 meeting.

- (a) A discussion of the status of "baseload" resources, including an update on retirements and at-risk capacity, reliability impacts, and the drivers of baseload shutdowns. This would include summaries of the recent U.S. DOE study on the topic, as well as studies from the U.S. Chamber of Commerce and The Analysis Group.
- (b) An analysis of renewable resources and energy storage one year into the Trump administration. We will consider the status of federal tax credits, state renewable portfolio standards, and the potential of solar inverters and storage to increase renewable capacity on the grid. We will include recent studies from Berkeley Labs, the U.S. DOE, Goldman Sachs, researchers at Cal-Berkeley, and SNL Financial. We will draw out the importance of SPP's definitions of ancillary services to the future of battery storage.
- (c) An update on the plateauing of demand for electricity and its impact on the need for investment in new transmission. We will look for efforts by transmission owners and grid planners to define new metrics for the value of transmission, and will look for updates on the drivers of flat demand, including energy efficiency and distributed generation.
- (d) An update on environmental regulations in the Trump era. Central to this will be a review of court action on challenges to President Obama's Clean Power Plan (CPP). The Trump Administration's EPA has said that it plans to rescind or repeal the CPP. The issue is whether it must repeal *and replace* the CPP. For example, on August 8, 2017, the DC Circuit extended the period in which CPP implementation will be held in abeyance. However, promoting the "replace" argument, two of the judges reminded the court that under a 2009 Supreme Court ruling the EPA has an "affirmative statutory obligation to regulate greenhouse gases." (*West Virginia et al v EPA*) In a related, but separate line of court action, environmental organizations are challenging specific companies for their failure to take climate change into account when complying with environmental law. For example, the Conservation Law Foundation has sued Shell Oil for not considering the rise in sea levels and more intense storms in its discussion of compliance with clean water rules. "Climate attribution" is the broader term for a new political and analytic approach to show the links between global climate change and major events such as Hurricanes Harvey and

Irma; we will discuss that approach here.

- (e) An update on the Shale Gas Revolution. We will ask the important question once again – “Will the shale gas and oil revolution continue?” We will begin with our important near-term metric – production per new well this year compared to last year. In addition, we reported last year that those who believe it will continue for the long-term base their hopes on big data analytics – we will check back to hear if this is still the case. In contrast, at least one prominent writer titled his recent article “Shale gas is not a revolution” – it is just once more cycle of shifting from shortage to abundance and back to shortage. We will look into new forecasts that show a plateauing of U.S. demand for natural gas and improving economics for LNG exports. We also will highlight an ISO New England study warning against overreliance on natural gas for electric generation.
- (f) We will assess further developments in decentralization and the new utility business model, including discussion of transmission and non-transmission alternatives, utility customer satisfaction and engagement, municipalization of load seeking to take control from incumbent utilities, and new studies regarding “cutting the cord” with the grid; we will cite reports by Swiss Re, Johns Hopkins, Navigant Research, Stanford University, Wells Fargo, and London Economics. We will also update our previous discussion of blockchain technology and its potential to impact the grid.
- (g) Short update on electric vehicles, including the shared, autonomous, electric vehicle model and related technical developments. Specifically, we would examine the basics of the “machine learning” algorithms that are being deployed to launch and improve upon autonomous driving technology. We will note the fundamentals of driverless vehicle software and hardware components, and their limitations, to prompt an informed discussion on the feasibility of driverless vehicles.
- (h) An update on jurisdictional issues in the electricity industry, including state decisions in Illinois and New York regarding state efforts to support in-state nuclear generation, and new challenges to FERC authority in approving natural gas pipelines.

**SPP Organizational Group Self-Evaluation/Assessment
(August 2016 – July 2017)**

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

THE CHARTER/SCOPE HAS BEEN REVIEWED IN THE PAST YEAR: **Yes**

MEMBER ROSTER/ATTENDANCE:

Member	Company	# Present	# Absent
*Altenbaumer, Larry	Director	3	0
Bernard, Phyllis	Director	5	0
*Edwards, Graham	Director	3	0
Martin, Josh (C)	Director	5	0
*Scherr, Bruce	Director	3	0
*Skilton, Harry	Director	3	0
Michael Desselle	Staff Secretary	5	0

***Only on Committee for part of the assessment period.**

AVERAGE OVERALL ATTENDANCE (INCLUDING NON-GROUP MEMBERS): 18

MEETINGS HELD TO DATE: Live: 5 Teleconference: 0

AVERAGE LENGTH OF MEETINGS: 6:20

NUMBER OF VOTES TAKEN: 6

***MEETING COST(S): \$62,365.89**

** 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. Increased Cyber and Physical Security Oversight
2. Expanded Committee oversight of MMU administrative functions
3. Hired MMU Executive Director replacement and managed seamless transition
4. Advocated for Internal Compliance Program (ICP) improvements
5. Continuous focus and support on culture of compliance
6. Continual assessment and realignment of Committees roles and responsibilities as an aspect of SPP Governance

MAJOR PENDING ISSUES BEFORE THE GROUP:

1. Consider receiving Annual Controls Audit Report
2. Integration of MWTG and impact on existing processes
3. Risk Assessment as an aspect of RTO compliance
4. Continuous focus and support on culture of compliance