



Southwest Power Pool
FINANCE COMMITTEE MEETING
November 9, 2011
Teleconference

• Summary of Action Items •

• Schedule of Follow-up Items •

1. SPP President to review metering in SPP region and suggest opportunities for improvement
2. Impact of depreciation schedules on property taxes and balance sheet.
3. Prepare a comparison of RTO credit exposure calculations to those proposed by SPP's CPWG
4. Perform full review of Integrated Marketplace project at December 12, 2011 meeting including:
 - a. Basis for \$105MM capex budget
 - b. Comparison with most recent cost/benefit study results
 - c. Structure of major contracts executed to complete project



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• M I N U T E S •

Agenda Item 1 – Administrative Items

SPP Chair Harry Skilton called the meeting to order at 1:30 p.m. The following members of the Finance Committee were in attendance:

Harry Skilton	SPP Director
Kelly Harrison	Westar
Sandra Bennett	Southwestern Power Company
Tom Dunn	SPP

The following members of the Credit Practices Working Group were in attendance:

Terri Wendlandt	Westar
Jayne Clarke	Sunflower
Gina Wilson	ITC Great Plains
Morgan Davies	Calpine

Others attending included:

Mark Holler	Tenaska
Eric Alexander	GRDA
Nathan Case	ACES Power Marketing
Robb Walt	Xcel Energy
Gerry Stephenson	KCPL
Bryan Willnerd	Lincoln Electric System
Willie Brooks	Arkansas Electric Coop
Pamela Newberry	OPPD
John Seck	Kansas Municipal Energy Agency
Vinisha Patel	The Energy Authority
Teena McCloud	
James Goforth	SPS
Rick Mueller	OPPD
Carl Monroe	SPP
Philip Bruich	SPP
Phil McCraw	SPP
Jared Barker	SPP
Richard Dillon	SPP
Bruce Rew	SPP
Debbie James	SPP
Lisa Caserta	SPP
Chuck Jennings	SPP
Scott Smith	SPP

Credit Exposure Calculation Enhancements

SPP staff led a discussion reviewing the recommendation of the Credit Practices Working Group on the use of Day-Ahead market data to determine potential exposure to Day-Ahead market customers. The

Finance Committee
October 14, 2011

course of the discussion also touched on SPP's credit methodology, the operating environment in the SPP region, changes in credit administration expected once the Integrated Marketplace is implemented, potential exposure calculations for Virtual transactions and Transmission Congestion Rights ("TCR") positions.

Future Meetings

The next meeting of the SPP Finance Committee is scheduled for December 12, 2011 beginning at 2pm central time and finishing at 6pm central. There was a suggestion to expand the meeting time to start at 10am and end at 6pm to allow ample time to review all changes to the Credit Policy which will be submitted as part of the Integrated Marketplace filing in February 2012.

There being no further business, Harry Skilton adjourned the meeting at 3:10 p.m.

Respectfully Submitted,

Thomas P. Dunn
Secretary

Finance Committee Credit Exposure Calculation Enhancements

Richard Dillon
November 9, 2011



Objective

- Reduce the SPP corporate exposure to defaults by accelerating the estimate for Day-Ahead energy and operating reserves in order to request more collateral

SPP Region: Business Environment

- SPP regional load is regulated by the states
 - Load Serving Entities generally also have generation
 - Speculative entities serving load is not prevalent
- SPP exposure to Market Participant non-payment is based on the net of payments and charges for all services

SPP Region: Business Environment (con't)

- Products and market functions are interrelated in Integrated Marketplace
 - Load cannot be removed from the Marketplace
 - Impact of excluding/blocking participation in the Day-Ahead Market would increase SPP credit exposure from higher real-time prices

Credit Approach

- Total Credit Limit (TCL) is composed of both unsecured and secured credit
 - FERC orders a minimum level of secured credit based on congestion rights exposure
- Credit is not distinguished by Trading Group (*e.g.* Transmission, EIS Market)
- Exposure is based on Total Potential Exposure (TPE) of all Trading Groups (*e.g.* Transmission, EIS Market)
- Exposure in excess of credit results in a request for additional collateral
- Default is based on all products and total credit

Total Potential Exposure

- Total Potential Exposure (TPE) per credit holder, across all Trading Groups is based on three time horizons:
 - Invoiced Not Paid (INP)
 - Settled Not Invoiced (SNI)
 - Estimated Not Settled (ENS)
- Trading Groups are defined as a grouping of SPP products which have a common credit treatment

Total Potential Exposure

- Total Potential Exposure (TPE) is calculated based on many different factors depending on the Trading Group considered
 - At a summary level, there are 17 components
 - ENS time horizon is not applied to EIS Resettlement
 - TCR ENS + Day-Ahead ENS + ...+ Virtual SNI + ... + Transmission INP

TPE: Day-Ahead ENS Timing Constraints

- Day-Ahead Trading Group ENS is a function of historical settlement of market activity and an exposure window
- Some key data needed to estimate “pre-settlement” values for Day-Ahead Market participation are:
 - Prices – Available prior to OD+4 (but uncorrected)
 - Meter Data – Not Available prior to OD+4
 - Bilateral Settlement Schedules – Not complete prior to OD+4
- Validation and resubmission is not complete until OD+7

Credit Event

- A Potential Credit Event is defined whenever:
 - Credit Limit Available < 0 or,
 - Secured Credit Limit Available < 0
- It is upon review by SPP's Credit Staff that a Potential Credit Event could be declared a Credit Event
- When Credit Event is called, the credit holder is given a time period to respond. This time period is known as the Cure Period
 - The Cure Period is defined as two full business days from the time that a Credit Event is declared

Credit Default

- A potential Default occurs if the Credit Event is not remedied during the Cure Period
- It is upon review by SPP's Credit Staff that a Potential Default could be declared a Default
- When a Default occurs:
 - Any new TCR bid/offer or Virtual bid/offer submitted by any MP attached to the Credit Holder is Disapproved
 - TCR portfolio could be seized and liquidated by SPP in Monthly Auction or Special Auction, subject to Credit Department Approval

TPE Calculation: Day-Ahead ENS Portion

- **Main Points**
 - Use the greater of the average settled exposure for Day-Ahead charges over the past 7 and 365 days
 - Multiply the average by an exposure window (Generally 9 days: 7 days + 2 business days of cure period)
- **Benefits**
 - Aligns Day-Ahead and Real-Time ENS calculations
 - Transparent to Market Participants
- **Drawbacks**
 - Credit implications are not recognized until a Settlement Statement is prepared (OD+7)

CPWG Alternatives discussed for Day-Ahead

- It may be possible to leverage the Settlements System to create a back-of-the-envelope Day-Ahead “pre-settlement” estimate sooner than OD+7
- On October 14, the Finance Committee instructed SPP and the CPWG to consider three options
 1. Use OD+1 “pre-settlement”
 2. Use OD+4 “pre-settlement”
 3. Use OD+4 “pre-settlement” with “advisory” OD+1 data

Alternative 1: OD+1 Day-Ahead ENS Calculation

- **Main Points**
 - Only 4 of 20 “Day-Ahead” charges rely solely on inputs produced by the Day-Ahead Market
 - Energy Settlements rely on Bilateral Settlement Schedules
 - Reserves Obligation rely on meter data (or State Estimator)
 - Prices have not been validated; gaps may exist
 - Day-Ahead and Real-Time calculation disconnect
 - Non-transparent to Market Participants

Alternative 1: OD+1 Day-Ahead ENS Calculation

- **Benefits**
 - Fastest incorporation of new information
- **Drawbacks**
 - Significant problems with data accuracy
 - Values not binding in Settlements

Alternative 2: OD+4 Day-Ahead ENS Calculation

- **Main Points**
 - The inputs to determine most “big-dollar” Day-Ahead charges will be reasonably available
 - Bilateral Settlements Schedules received
 - State Estimator should be fairly reliable at OD+4
 - Prices have not been validated; gaps may exist
 - Day-Ahead and Real-Time calculation disconnect
 - Not transparent to Market Participants

Alternative 2: OD+4 Day-Ahead ENS Calculation

- **Benefits**
 - Faster incorporation of new information
- **Drawbacks**
 - Problems with data accuracy
 - Values not binding in Settlements

Alternative 3: OD+4 with Advisory OD+1 Day-Ahead ENS

- **Main Points**
 - OD+4 considerations
 - OD+1 data is insufficiently reliable to use in calculations so advisory value is diminished
 - Actions to take in response to OD+1 information unclear

Alternative 3: OD+4 with Advisory OD+1 Day-Ahead ENS

- **Benefits**
 - OD+4 with additional OD+1 information
- **Drawbacks**
 - Additional cost and effort (including resources) for the OD+1 calculation
 - Cost and complexity justification if OD+1 is not actionable data

Marketplace Impacts: ENS Alternatives

- Any of the alternative “pre-settlement” calculations does impact the Program and SPP’s on-going operations
 - Additional business processes / validations are needed
 - Additional test cases and failure condition logic
 - Potential system design / interface changes
 - Extra Settlement runs and validation of runs
 - Impact on cost/schedule
 - In process

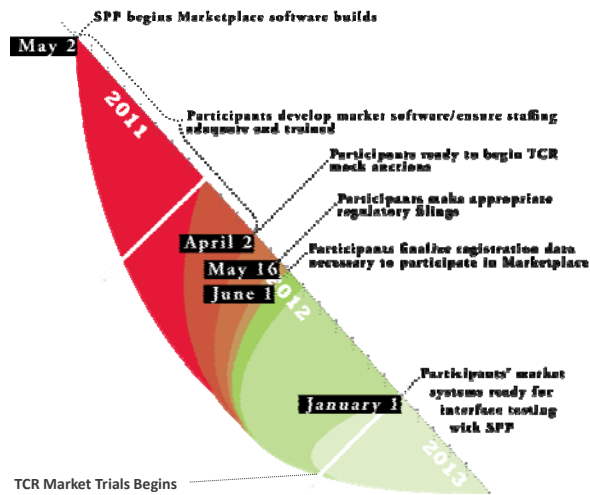
CPWG Recommendation

- CPWG recommends using the OD+4 “pre-settlement” to update the Day-Ahead 7-day average for energy and reserves
 - If no OD+4 “pre-settlement” is received, Day-Ahead ENS calculations will be based on the data available
 - The results will be binding on MPs from a credit perspective, regardless of OD+4 data accuracy

Recommendation

- Finance Committee accepts the CPWG recommendation for inclusion in the Credit Policy.

Market Participant Milestones



MAY 15, 2013
PARTICIPANTS READY
FOR SYSTEM INTEGRATION

APPENDIX

Credit in EIS

- SPP requires that Market Participants hold enough credit in order to participate in the EIS Market
- The credit exposure is designed around 2 Trading Groups:
 - Transmission
 - Energy Imbalance services

Credit in Integrated Marketplace

- A similar requirement will exist for the Integrated Marketplace:
 - Credit Exposure is defined around 6 Trading Groups:
 - Transmission
 - Real-Time Energy
 - Day-Ahead Energy
 - Virtual Energy
 - Transmission Congestion Rights
 - EIS Resettlements (does not include estimated component)

Total Credit Limit

- Total Credit Limit (TCL) per credit holder consists of:
 - Unsecured Credit
 - Secured Credit
 - Mandatory for activity in TCR Market

Total Potential Exposure

- **Total Potential Exposure (TPE) per credit holder [total liability as computed across all time horizons and all Trading Groups for each Market Participant mapped to that credit holder]:**
 - **Consists of:**
 - **Unsecured TPE**
 - **Secured TPE**
 - Based on TCR Trading Group activities and other activities for which the Credit Holder has insufficient Unsecured Credit

Credit Limit Available

- **Credit Limit Available (CLA) per credit holder [total amount of credit available to the MPs mapped to that credit holder]:**
 - **Will consist of:**
 - **Unsecured CLA**
 - **Secured CLA**
 - **Transactions coverage:**
 - **Transactions that can be covered by either Secured or Unsecured credit will always be covered by Unsecured Credit first until unavailable**

CPWG Alternatives Marketplace Impact Rating

Effort Impact: High, Medium, Low

	OD+1	OD+4	OD+4 with OD+1 advisory	OD+7
Additional business processes / validations are needed	High	Medium	High	Low
Additional test cases and failure condition logic	High	Medium	High	Low
Potential system design / interface changes	High	Medium	High	Low
Extra Settlement runs and validation of runs	High	Medium	High	Low
Impact on cost/schedule	In Process	In Process	In Process	None