



**Southwest Power Pool**  
**BOARD OF DIRECTORS MEETING**  
**January 27, 2004**  
**New Orleans Marriott – New Orleans**

**• A G E N D A •**

10 a.m. – 3 p.m.

1. Administrative Items ..... Mr. Al Strecker
2. Nominating Task Force Report ..... Mr. Dave Christiano
3. Organizational Group Rosters & Leadership Appointments ..... Ms. Stacy Duckett
4. RTO Docket ..... Mr. Nick Brown
5. Finance Committee Report ..... Mr. Harry Skilton
6. Operations Report/Blackout Update..... Mr. Carl Monroe
7. Operations Policy Committee Report ..... Mr. Mel Perkins
8. Strategic Planning Committee Report ..... Mr. Richard Spring
9. Executive Session

**Southwest Power Pool  
BOARD OF DIRECTORS MEETING  
Peabody Hotel – Little Rock, Arkansas  
October 28-29, 2003**

**- Summary of Action Items -**

1. Approved minutes of the August 26, 2003 meeting, the September 22, 2003 teleconference meeting as modified, and the October 1, 2003 teleconference.
2. Approved recommended changes for Criteria 7.
3. Approved that SPP Staff continue working with vendors at current spending levels and delay committing to long-term or complete imbalance energy market systems development until Regional Transmission Organization recognition is granted.
4. Approved a three percent budget salary adjustment for the SPP Staff.
5. Approved a \$200,000 market value adjustment for manager and director levels of SPP Staff.
6. Approved the 2004 Administrative Budget of \$38,332,282 for operating expense and debt service and \$15,889,259 for capital expenditures.
7. Approved by acclamation a resolution for Mr. John Marschewski in honor of his retirement.
8. Approved the reappointment of Board of Directors chair and vice chair until transition to the governance structure when RTO status is granted.
9. Approved a new fee schedule for the compensation of non-stakeholder directors.

**Southwest Power Pool  
BOARD OF DIRECTORS MEETING  
Peabody Hotel – Little Rock, Arkansas  
October 28-29, 2003**

**TUESDAY**

**Agenda Item 1 - Administrative Items**

SPP Chair Mr. Al Strecker called the meeting to order at 1:04 p.m., thanked everyone present for attending and referred to the agenda (Agenda – Attachment 1). Mr. Strecker then called for a roll call and a round of introductions. The secretary introduced special guests: Mr. Mike McLaughlin and Mr. Tony Ingram of FERC, Non-Stakeholder Nominee Ms. Phyllis Bernard, Oklahoma Corporation Committee Chair Denise Bode, and Arkansas Public Service Commission Chair Sandy Hochstetter. The following Board members were in attendance or represented by proxy:

Mr. Gene Argo, Midwest Energy,  
Mr. David Christiano, City Utilities of Springfield, MO,  
Mr. Harry Dawson, Oklahoma Municipal Power Authority,  
Mr. Dick Dixon, Westar Energy,  
Mr. Jim Eckelberger, independent director,  
Mr. Michael Gildea, Duke Energy North America,  
Ms. Trudy Harper, Tenaska Power Services Company,  
Mr. Quentin Jackson, independent director,  
Mr. John Marschewski, Southwest Power Pool,  
Mr. Stephen Parr, Kansas Electric Power Coop.,  
Mr. Gary Roulet, Western Farmers Electric Cooperative,  
Mr. Jim Sherwood, proxy for Mr. Michael Deihl, Southwestern Power Admin.,  
Mr. Harry Skilton, independent director and proxy for Mr. Larry Sur,  
Mr. Richard Spring, Kansas City Power & Light,  
Mr. Al Strecker, OG+E,  
Mr. Richard Verret, American Electric Power,  
Mr. Gary Voigt, Arkansas Electric Cooperative Corp.,  
Mr. Walt Yeager, Cinergy Services

There were 56 persons in attendance representing 24 members (Attendance List - Attachment 2). Mr. Brown received two proxy statements (Proxies - Attachment 3) and a quorum was declared.

Mr. Strecker referred to draft minutes of the August 26, 2003 meeting (8/26/03 Meeting Minutes - Attachment 4) and asked for necessary corrections or a motion for approval. Mr. Skilton moved that the minutes be approved as presented. Mr. Voigt seconded this motion, which passed unopposed. Mr. Strecker then referred to the draft teleconference minutes of September 22, 2003 (9/22/03 Teleconference Minutes – Attachment 5) and asked for necessary corrections or a motion for approval. Mr. Quentin Jackson stated that he had attended the teleconference. The minutes will be modified to reflect this addition. The minutes were approved unopposed as modified. Mr. Strecker referred to the draft teleconference minutes of October 1, 2003 (10/01/03 Minutes – Attachment 6). The minutes were approved unopposed as presented.

Mr. Marschewski made special presentations to Mr. Dick Dixon and Mr. Gene Argo, both of whom will retire at the end of 2003. Mr. Dixon and Mr. Argo were presented with plaques and thanked for their many years of service to SPP.

**Agenda Item 2 – Operations Policy Committee Report**

Mr. Mel Perkins (OG+E) presented the Operations Policy Committee Report (OPC Report – Attachment 7). Mr. Perkins stated that the OPC, formed from the former Commercial Practices Committee and the Engineering and Operating Committee, had its first meeting on September 28-29, 2003. There are 14 working groups that report to the OPC. OPC is in the process of reviewing and updating all working group

scopes which will be presented for approval at a later date. A Regional Planning Summit is planned for Monday, November 17, in Kansas City to begin a collaborative effort to develop a regional planning process and the associated transmission expansion plan for SPP. This summit is open to all interested parties.

Mr. Perkins presented a recommendation for changes in Criteria 7 as proposed by the System Protection and Control Working Group and the OPC (Criteria 7 Recommendation – Attachment 8). These changes are primarily group name changes and wording changes to be in line with the NERC template. Mr. Jackson moved to approve this recommendation. Mr. Marschewski seconded this motion, which passed unopposed.

Mr. Perkins noted actions taken by the OPC on recommendations of the Business Practice Working Group (BPWG):

- Approved postponement of Business Practices WG proposal to utilize re-dispatch/curtailment under SPP Regional Tariff Attachment K in analysis of short-term firm transmission service to allow review by the Operation Reliability WG and the Regional Tariff WG
- Approved the Business Practices WG recommendation for DC ties reservation process with a legal review on limiting the number of requests
- Approved the Business Practices WG proposal to incorporate Zonal Modeling in AFC calculations

Mr. Perkins stated that the Operations Policy Committee approved the following Market Working Group recommendation (OPC Recommendation – Attachment 9):

The Operations Policy Committee recommends that the approach of the Markets Working Group in developing an implementation plan for Phase 1 is acceptable, without due consideration of the financial commitments or financial impacts. However, the Operations Policy Committee requests the Board of Directors clarify whether the timing and expenditures of Phase 1 implementation precedes or is dependent upon RTO approval.

Mr. Perkins stated that Mr. Spring would present this recommendation combined with the Strategic Planning Committee recommendation.

### **Agenda Item 3 – Strategic Planning Committee Report**

Mr. Richard Spring presented the Strategic Planning Committee Report (SPC Report – Attachment 10). Mr. Spring said that due to recommendations contained in the Initial and Secondary Strategic Plan Reports and approved by the Board of Directors, SPC recommends the following including the OPC recommendation:

The Operations Policy Committee recommends that the approach of the Markets Working Group in developing an implementation plan for Phase 1 is acceptable.

The SPP Strategic Planning Committee recommends to the Board of Directors that Staff continue working with the vendors at current spending levels, members, and states in the development of the imbalance energy market systems. The Strategic Planning Committee further recommends that the Board of Directors delay execution of a vendor contract committing SPP to long-term or complete imbalance energy market systems development until Regional Transmission Organization recognition is granted.

Mr. Eckelberger suggested changing the word “granted” to “determined”. Ms. Hochstetter suggested “All necessary approvals” including state should be added. Mr. Eckelberger pointed out that his modification addresses that issue. Mr. Brown clarified that the bottom line was no long-term commitments could be made without further Board authorization. With no further discussion, Mr. Spring moved to approve the recommendation including Mr. Eckelberger’s suggested change. Mr. Verret seconded the motion, which

passed unanimously.

Mr. Strecker asked for state comments regarding the RTO filing:

Commissioner Hochstetter stated that though they were involved in the process, states still have issues and concerns over FERC modifications and maintaining uniqueness. She thought FERC could very well view SPP as a model, an RTO light with a barebones minimalist approach. Ms. Hochstetter stated that she could not support an RTO with the loss of state jurisdiction over transmission component of bundled retail rates. The time allotted for comment on the filing is not sufficient and she said Arkansas would request an extension.

Commissioner Bode stated that she absolutely supported SPP attaining RTO status and appreciated SPP processes. She was disappointed about not including the Regional State Committee (RSC) language and was hopeful that it will be added in the FERC order. Ms. Bode said she was concerned about the AEP letter and stated that commitment was needed.

Mr. McLaughlin said he appreciated the invitation to the Board meeting and would continue to attend SPP meetings. He said that filings for extensions for the RTO filing comment period were expected.

#### **Agenda Item 4 – Employee Benefits Working Group Report**

Mr. Eckelberger presented the Employee Benefits Working Group recommendations (EBWG Recommendation – Attachment 11). Mr. Eckelberger stated that SPP management has reviewed the current salaries of employees, the marketplace for employees in which SPP operates, merit increases proposed at several SPP member institutions, and merit increases proposed by several RTO/ISO organizations in the U.S. SPP management believes increases for existing employees are required to maintain a qualified and motivated workforce to complete SPP's mission. The financial impact of a three percent merit increase for the Staff in 2004 is \$258,000. In 2003 the approved merit increase was four percent. Mr. Eckelberger moved that the SPP Board of Directors approve a three percent salary adjustment for SPP staff. Mr. Dawson seconded and the motion passed unanimously.

Mr. Eckelberger then presented a recommendation for market value adjustments (Market Value Adjustments – Attachment 12). He stated that specific SPP employees, primarily in the manager and director levels, are performing functions that place their market value beyond their current compensation level and are not highly correlated with the existing market as computed by Hewitt Associates in its 2001 Salary Survey prepared for SPP. Mr. Eckelberger moved that the SPP Board of Directors approve a market adjustment for certain SPP staff in the amount of \$207,000. Mr. Dixon suggested rounding this number to \$200,000. This being acceptable to Mr. Eckelberger, Mr. Jackson seconded the motion, which passed unanimously.

#### **Agenda Item 5 – Finance Working Group - 2003 Administrative Budget**

Mr. Skilton and Mr. Tom Dunn (SPP) presented the Finance Working Group report (FWG Report – Attachment 13). Mr. Dunn stated the 2004 budget was developed to support the Strategic Plan adopted by the Board of Directors with specific objectives to include Order 2000 compliance, RTO recognition, and maintaining reliability and security. Mr. Dunn reviewed the Executive Summary (FWG Recommendation and Executive Summary – Attachment 14) and stated the Finance Working Group recommends approval of the 2004 budget of as follows:

- Operating Expense, Interest Expense, Principal Repayment \$ 38,332,282
- Capital Expenditures \$ 15,889,259

This budget may be further categorized as follows:

	<u>Operating</u>	<u>Capital</u>
• Base Operations	\$ 28,593,156	\$ 3,036,804
• Imbalance Energy	9,034,497	5,052,455
• Market Monitoring/Mitigation	620,629	3,000,000
• Congestion Management	84,000	4,800,000

SPP will be required to obtain financing sufficient to fund capital projects expected to begin during 2004. Capital project financing will total \$16 million during 2004. SPP will also require working capital financing to support cash flow timing differences estimated to be between \$6 million to \$8 million. SPP seeks authority to renew and increase its existing revolving facility to \$10 million to support temporary cash needs in 2004.

Pursuant to SPP's capital expenditure funding policy, SPP will fund capital expenditures through new borrowings. Based on the budget outlined above, SPP will need to raise \$16 million in new long-term debt during 2004. The Executive Summary details assumptions used in developing the budget and items included in the budget. Mr. Skilton moved to approve the Operating and Capital budgets as submitted including the following recommendation:

The Finance Working Group further recommends that authority to expend funds for items identified in the budget as Imbalance Energy expenditures, Market Monitoring/ Mitigation expenditures and Congestion Management expenditures be subject to future specific approval of the SPP Board of Directors. Further, the Finance Working Group and SPP staff will negotiate with lenders to arrange suitable financing to fund 2004's capital expenditures. Specific SPP Board of Directors approval will be required prior to executing new long-term borrowing arrangements.

Mr. Spring seconded the motion, which passed unanimously.

Mr. Brown was asked to present a resolution to the Board of Directors in honor of Mr. John Marschewski's retirement from SPP at the end of 2003 (Marschewski Resolution – Attachment 15). Mr. Brown read the resolution and presented a framed copy to Mr. Marschewski. Mr. Strecker moved for acceptance. Mr. Eckelberger seconded the motion, which passed by acclamation.

### **Adjournment**

Mr. Strecker thanked everyone for participating and adjourned the meeting at 2:30 p.m. asking that the Board of Directors reconvene in executive session.

## ***WEDNESDAY***

### **Agenda Item 1 - Nominating Task Force Report**

Mr. Strecker reconvened the Board of Directors at 10:08 a.m. and asked Mr. Christiano to present the Nominating Task Force report (NTF Report – Attachment 16). Mr. Christiano moved to have the Board approve the following:

The Nominating Task Force nominates to the Board of Directors Al Strecker to serve as Chair and Jim Eckelberger to serve as Vice Chair, for two-year terms, or until transition to the governance structure in SPP's RTO application. Mr. Desselle seconded the motion, which passed unopposed.

Mr. Christiano then moved to approve the following fee schedule for compensation of non-stakeholder directors:

Annual Retainer - \$15,000 (no change)  
Board Meeting Director Attendance Fee - \$3000 (no change)  
Board Meeting Chair Attendance Fee - \$3500 (currently \$3000)

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Board Meeting Director Teleconference Fee - \$500 (currently \$1500)  
Committee Meeting Attendance Fee - \$2000 (currently none)  
Committee Meeting Chair Fee - \$2500 (currently none)  
Committee Meeting Teleconference Fee - \$500 (currently none)

Mr. Voigt seconded the motion, which passed unopposed.

**Future Meetings**

Mr. Brown stated that a poll had been taken for future meeting dates on October 14 requesting responses by October 16. The 2004 Board of Directors meetings will be on: January 27, April 27, July 27, and October 26 with the Annual Meeting of Members on October 27. Locations are to be announced.

**Adjournment**

With no further business, Mr. Strecker thanked everyone for participating and adjourned the meeting at 10:16 a.m.

Nicholas A. Brown, Corporate Secretary

**Southwest Power Pool  
NOMINATING TASK FORCE  
Report to the Board of Directors  
January 27, 2004**

**Background**

There are currently three vacancies on the Board of Directors: Gene Argo's seat (Midwest Energy) in the Transmission Owner category, due to retirement; Dick Dixon's seat (Westar) in the Transmission Owner category, due to retirement; and Michael Gildea's seat (Duke) in the Transmission User category (IPP/Marketer/Other sector), due to resignation. Several candidates were presented and discussed by the task force.

Per SPP's Bylaws, the Nominating Task Force is responsible for nominating to the membership candidates equal in number to the board positions to be filled (positions with expiring terms, any vacancies and temporary appointments). The Nominating Task Force consists of David Christiano (Chair), Gary Voigt, Stephen Parr, Michael Deihl, and Al Strecker.

**Nominees**

The Nominating Task Force presents the following slate to the Board of Directors for interim election until the next Meeting of Members: Mike Palmer (Empire) filling Gene Argo's unexpired 2-year term; Doug Henry (Westar) filling Dick Dixon's unexpired 1-year term; and Jim Stanton (Calpine) filling Michael Gildea's unexpired 3-year term.

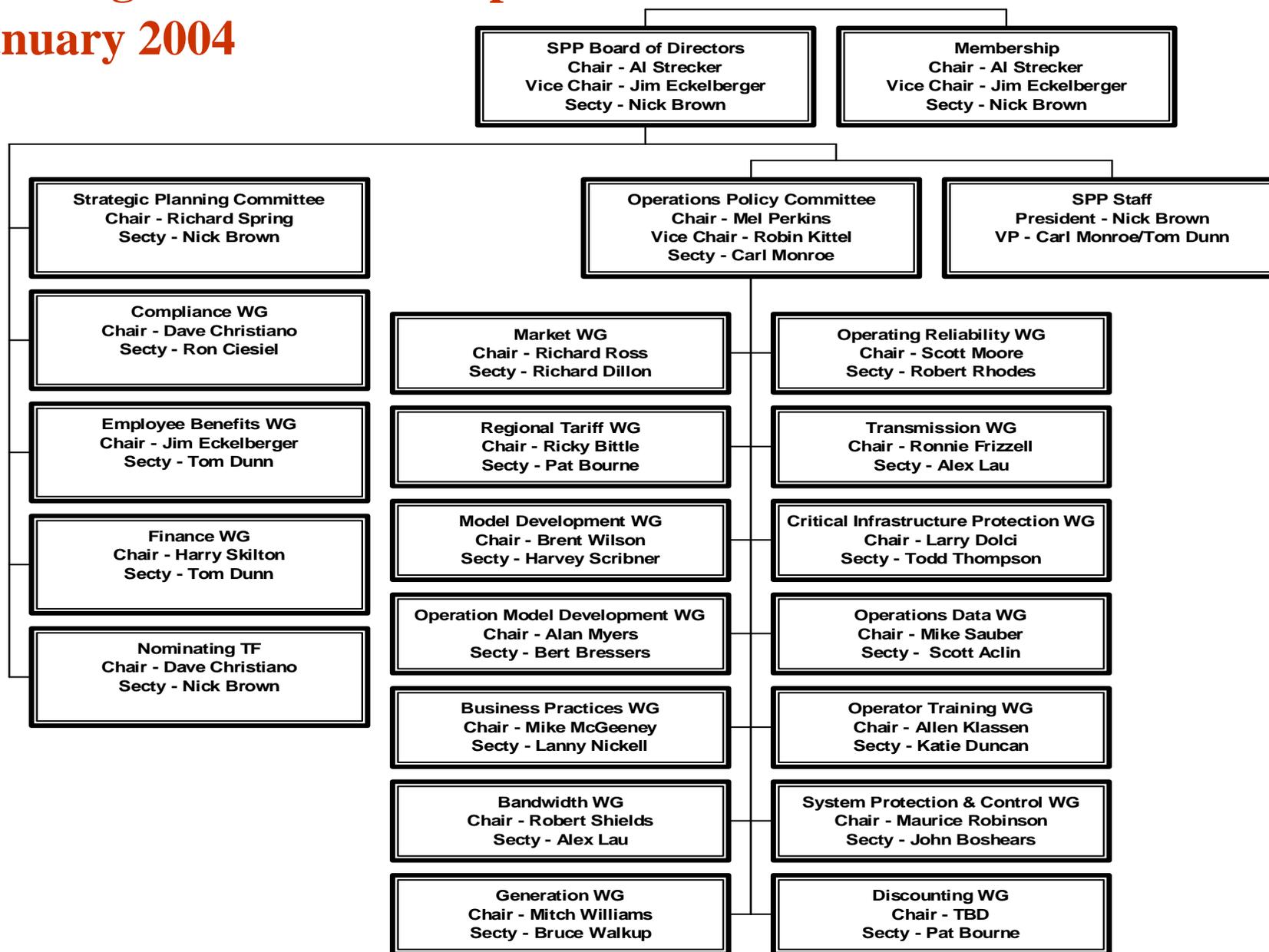
<b>Current Director</b>	<b>Category</b>	<b>Unexpired Term</b>	<b>Nominee</b>
Gene Argo, Midwest Energy	Transmission Owner	1 year	Mike Palmer, Empire District
Dick Dixon, Westar	Transmission Owner	3 years	Doug Henry, Westar
Michael Gildea, Duke	Transmission User	2 years	Jim Stanton, Calpine

**Approved:**                      Nominating Task Force                      January 12, 2004

**Action Requested:** Elect Nominees

# SPP Organizational Groups

## January 2004



**Bandwidth Working Group**

- |     |  |  |
|-----|--|--|
| (C) | Shields, Robert<br>Marks, Jannell<br>Rastogi, Sharad | Arkansas Electric Cooperative Corporation<br>Xcel Energy<br>Western Farmers Electric Cooperative |
| (S) | Lau, Alex  |  |

**Business Practices Working Group**

- |     |  |  |
|-----|--|--|
| (C) | McGeeney, Mike<br>Anthony, Darrell<br>Chin, Wilma<br>Foreman, Mark<br>McCord, Rick<br>Taylor, Howard<br>Toole, David<br>Wilkerson, Grant | Kansas City Power & Light Company<br>OG+E Electric Services<br>Coral Power LLC<br>Tenaska Power Services Co.<br>Empire District Electric Company<br>Calpine Energy Services, L.P.<br>Cargill - Alliant, LLC<br>Westar Energy |
| (S) | Nickell, Lanny   |  |

**Critical Infrastructure Protection Working Group**

- |     |  |  |
|-----|--|--|
| (C) | Dolci, Larry<br>Amyette, Mark<br>Ashford, Dewayne<br>Boggess, Darryl<br>Breckenridge, John<br>Engel, Mike<br>Freese, Gerald<br>Good, Richard<br>McClanahan, Robert<br>Overland, Keith<br>Reynolds, Wayne<br>Veillon, Michael | Kansas City Power & Light Company<br>Xcel Energy<br>OG+E Electric Services<br>Western Farmers Electric Cooperative<br>Aquila, Inc.<br>Midwest Energy, Inc.<br>American Electric Power<br>Westar Energy<br>City Power & Light (Independence, MO)<br>Sunflower Electric Power Corp.<br>City Power & Light (Independence, MO)<br>Cleco Power, LLC |
| (O) | Diebold, Steve   | Kansas City Power & Light Company  |
| (O) | Krysa, Mitch   | Aquila, Inc.   |
| (O) | Worf, Mark   | Sunflower Electric Power Corp.   |
| (S) | Thompson, Todd   |  |

(C) Chair

(VC) Vice Chair

(S) Secretary

(O) Observer

(L) Liaison

**Discounting Working Group**

(C) Henry, Craig	OG+E Electric Services
Conus, Howard	City Utilities (Springfield, MO)
Derichsweiler, Alan	Western Farmers Electric Cooperative
Dowling, Bill	Midwest Energy, Inc.
Emery, Greg	Aquila, Inc.
Foreman, Mark	Tenaska Power Services Co.
Gunesch, John	OG+E Electric Services
Isley, Wendy	Kansas City Power & Light Company
Kite, Ron	Kansas City Power & Light Company
McCord, Rick	Empire District Electric Company
Reed, Dennis	Westar Energy
Sherwood, James	Southwestern Power Administration

(S) Bourne, Pat

**Facility Connection Task Force**

(C) Taylor, Donald D.	Westar Energy
Crissup, Phil	OG+E Electric Services
Sargent, Dave	Southwestern Power Administration

(S) Tynes, Keith

**Generation Working Group**

(C) Williams, Mitch	Western Farmers Electric Cooperative
Davis, Brent	Kansas City Power & Light Company
Lachowsky, Andrew	Arkansas Electric Cooperatives Corporation
Lemmons, David	XCEL – Southwestern Public Service
Massey, Steve	Westar Energy
Maynard, Von	Calpine
Nutt, Lori	Oklahoma Municipal Power Authority
Ondayko, Brock	American Electric Power
Sheriff, Mike	OGE Energy Corp.

(S) Walkup, Bruce

(C) Chair

(VC) Vice Chair

(S) Secretary

(O) Observer

(L) Liaison

**Market Working Group**

- |                   |   |
|-------------------|---|
| (C) Ross, Richard | American Electric Power                   |
| Anderson, Gene    | Oklahoma Municipal Power Authority        |
| Base, Doug        | Western Farmers Electric Cooperative      |
| Berger, Wes       | Xcel Energy                               |
| Crawford, Burton  | Kansas City Power & Light Company         |
| Mason, Stan       | Southwestern Power Administration         |
| Offield, Tandra   | East Texas Electric Coop., Inc.           |
| Saitta, Tom       | Aquila, Inc.                              |
| Stanton, James R. | Calpine Energy Services, L.P.             |
| Stephens, John    | City Utilities (Springfield, MO)          |
| Stuchlik, Tom     | Westar Energy                             |
| Sugg, Keith       | Arkansas Electric Cooperative Corporation |
| Toole, David      | Cargill - Alliant, LLC                    |
| Wylie, Bill       | OG+E Electric Services                    |
- (S) Dillon, Richard

**Metering Standards and Protocol Task Force**

- |                  |                                      |
|------------------|--------------------------------------|
| (C) Scott, Clay  | OG+E Electric Services               |
| Bailey, Randy    | Public Service Co. of Oklahoma-AEP   |
| Base, Doug       | Western Farmers Electric Cooperative |
| Bernert, David   | American Electric Power              |
| Coco, Greg       | Cleco Power, LLC                     |
| Ernst, Everett   | OG+E Electric Services               |
| Fisher, Ralph    | Public Service Co. of Oklahoma-AEP   |
| Tervooren, Dwane | American Electric Power              |
- (S) Watson, Eddie

**Model Development Working Group**

- |                   |                                   |
|-------------------|-----------------------------------|
| (C) Wilson, Brent | American Electric Power           |
| Sargent, Dave     | Southwestern Power Administration |
| Useldinger, Jim   | Kansas City Power & Light Company |
- (S) Scribner, Harvey

(C) Chair

(VC) Vice Chair

(S) Secretary

(O) Observer

(L) Liaison

**Operating Reliability Working Group**

(C) Moore, Scott	American Electric Power
(VC) Burrows, Gerry W.	Kansas City Power & Light Company
Cochran, Bob	Southwestern Public Service Company
Kuebeck, Pete	OG+E Electric Services
Massey, Steve	KPL-Westar Energy
Reid, Maxwell	Cleco Power, LLC
Stuchlik, Tom	Westar Energy
Sugg, Keith	Arkansas Electric Cooperative Corporation
Thompson, Jim	Duke Energy Trading & Marketing
Williams, Noman	Sunflower Electric Power Corp.

(S) Rhodes, Robert

**Operating Reserve Task Force**

(C) Nolte, Bill	Sunflower Electric Power Corp.
Blanchard, Cindy	Cleco Power, LLC
Bordelon, Matthew	Cleco Power, LLC
Case, Jim	Entergy Services, Inc.
Ellis, Sam	Southwest Power Pool
Gautreau, Tim	Entergy Services
MacDonald, Mark	Cleco Power, LLC
Massey, Steve	KPL-Westar Energy
Morphis, Kim	OG+E Electric Services
(O) Ralls, Aaron	Southwest Power Pool

(S) Brown, Shari

(C) Chair

(VC) Vice Chair

(S) Secretary

(O) Observer

(L) Liaison

**Operation Model Development Working Group**

(C) Myers, Alan	Aquila, Inc.
Durham, Jimmy	American Electric Power
Gilmer, Jim	Xcel Energy
Hargrove, Don	OG+E Electric Services
Jones, Bo	Westar Energy
Sargent, Dave	Southwestern Power Administration
Wyble, Harold	Kansas City Power & Light Company
Williams, Mitch	Western Farmers Electric Cooperative
Williams, Noman	Sunflower Electric Power Corp.

(S) Bressers, Bert

**Operations Data Working Group**

(C) Sauber, Mike	Aquila, Inc.
Bogges, Darryl	Western Farmers Electric Cooperative
Bordelon, Matthew	Cleco Power, LLC
Cochran, Bob	Southwestern Public Service Company
Crayne, David	Empire District Electric Company
Diebold, Steve	Kansas City Power & Light Company
Hixson, Rick	Southwestern Power Administration
Jacoby, Jim	American Electric Power
Kuebeck, Pete	OG+E Electric Services
Wirtz, Jon	Westar Energy
Worf, Mark	Sunflower Electric Power Corp.

(S) Aclin, Scott

(C) Chair

(VC) Vice Chair

(S) Secretary

(O) Observer

(L) Liaison

**Operations Policy Committee**

(C) Perkins, Melvin	OG+E Electric Services
(VC) Kittel, Robin	Xcel Energy
Anderson, Ken	Western Farmers Electric Cooperative
Apprill, Mike	Missouri Public Service–Aquila, Inc.
Barber, Paul F.	Edison Mission Marketing & Trading, Inc.
Benoit, Edgar	Kansas Electric Power Coop
Brown, Jeff	Coral Power LLC
Burnett, Leon	Board of Public Utilities (Kansas City, KS)
Butts, John	East Texas Electric Coop., Inc.
Carraway, Marvin L.	City of Clarksdale, Mississippi
Christiano, David	City Utilities (Springfield, MO)
Coco, Greg	Cleco Power, LLC
Corneli, Steve	NRG Power Marketing, Inc
Desselle, Michael	American Electric Power
Dowling, Bill	Midwest Energy, Inc.
Easley, Steve	Kansas City Power & Light Company
Geisler, Greg	Tenaska Power Services Co.
Huslig, Carl	Aquila, Inc.
Langthorn, Jake	Oklahoma Municipal Power Authority
Ledoux, Frank	City of Lafayette, LA
Leverett, Larry	TXU Energy Trading Co.
Mahlberg, Paul	City Power & Light (Independence, MO)
McCulla, Mark	Entergy Services, Inc.
Moore, Scott	American Electric Power
Mudgett, Jane	Williams Power Company
Nicolay, Christi	Duke Energy Trading & Marketing
Ortego, Errol	Louisiana Energy & Power Authority
Palmer, Mike	Empire District Electric Company
Price, Dennis	El Paso Merchant Energy, L.P.
Priest, Robert	Public Service Comm. of Yazoo City, MS
Reed, Harvey	Constellation Power Source
Reeves, Forrest	Southwestern Power Administration
Robinson, S. Maurice	Arkansas Electric Cooperative Corporation
Rockey, Steve	Grand River Dam Authority
Stanton, James R.	Calpine Energy Services, L.P.
Stuchlik, Tom	Westar Energy
Toole, David	Cargill - Alliant, LLC
Tyler, Richard M.	Northeast Texas Electric Cooperative
Waggoner, Carroll	Sunflower Electric Power Corp.
Warren, Larry	Tex-La Coop. of Texas, Inc.
Yeager, Walter	Cinergy Corporation
(S) Carl Monroe	

(C) Chair

(VC) Vice Chair

(S) Secretary

(O) Observer

(L) Liaison

**Operations Training Working Group**

- |                    |                                      |
|--------------------|--------------------------------------|
| (C) Klassen, Allen | Westar Energy                        |
| Due, Anthony       | Grand River Dam Authority            |
| Stanton, James R.  | Calpine Energy Services, L.P.        |
| Venable, Della     | Western Farmers Electric Cooperative |
| Walker, Robert     | OG+E Electric Services               |
- (S) Duncan, Katie

**Queuing Improvement Task Force**

- |                   |                                |
|-------------------|--------------------------------|
| (C) Helyer, Scott | Tenaska Power Services Co.     |
| Atwood, Jason     | Calpine Energy Services, L.P.  |
| Hostetler, Tim    | American Electric Power        |
| Wilkerson, Grant  | Westar Energy                  |
| Williams, Noman   | Sunflower Electric Power Corp. |
- (S) Rew, Bruce

**Regional Tariff Working Group**

- |                   |   |
|-------------------|---|
| (C) Bittle, Ricky | Arkansas Electric Cooperative Corporation |
| (VC) Reed, Dennis | Westar Energy                             |
| Anderson, Gene    | Oklahoma Municipal Power Authority        |
| Bethel, Dennis    | American Electric Power                   |
| Bowser, Robert    | Kansas Electric Power Cooperative         |
| Brown, Jeff       | Coral Power LLC                           |
| Bryan, David      | East Texas Electric Coop., Inc.           |
| Dowling, Bill     | Midwest Energy, Inc.                      |
| Foreman, Mark     | Tenaska Power Services Co.                |
| Grover, David     | Southwestern Public Service Company       |
| Gunesch, John     | OG+E Electric Services                    |
| Kite, Ron         | Kansas City Power & Light Company         |
| Proctor, Mike     | Missouri Public Service Commission        |
| Sherwood, James   | Southwestern Power Administration         |
| Stanton, James R. | Calpine Energy Services, L.P.             |
| Warren, Bary K.   | Empire District Electric Company          |
| Williams, Mitch   | Western Farmers Electric Cooperative      |
- (S) Bourne, Pat

**Scheduling Task Force**

- |     |                  |                                     |
|-----|------------------|-------------------------------------|
| (C) | Reed, Dennis     | Westar Energy                       |
|     | Blanchard, Cindy | Cleco Power, LLC                    |
|     | Cochran, Bob     | Southwestern Public Service Company |
|     | Graham, Dean     | Southwestern Power Administration   |
|     | McAvoy, Jim      | OG+E Electric Services              |
| (O) | Sugg, Barbara    | Southwest Power Pool                |
| (S) | Brown, Shari     |                                     |

**System Protection and Control Working Group**

- |     |                      |   |
|-----|----------------------|---|
| (C) | Robinson, S. Maurice | Arkansas Electric Cooperative Corporation |
|     | Hakim, Mashallah     | OG+E Electric Services                    |
|     | Ipock, Fred          | City Utilities (Springfield, MO)          |
|     | Melson, Heidt        | Xcel Energy                               |
|     | Roach, Bob           | Kansas City Power & Light Company         |
|     | Schroeder, Lynn      | Westar Energy                             |
|     | Sikes, Dean          | Cleco Power, LLC                          |
| (S) | Boshears, John       |   |

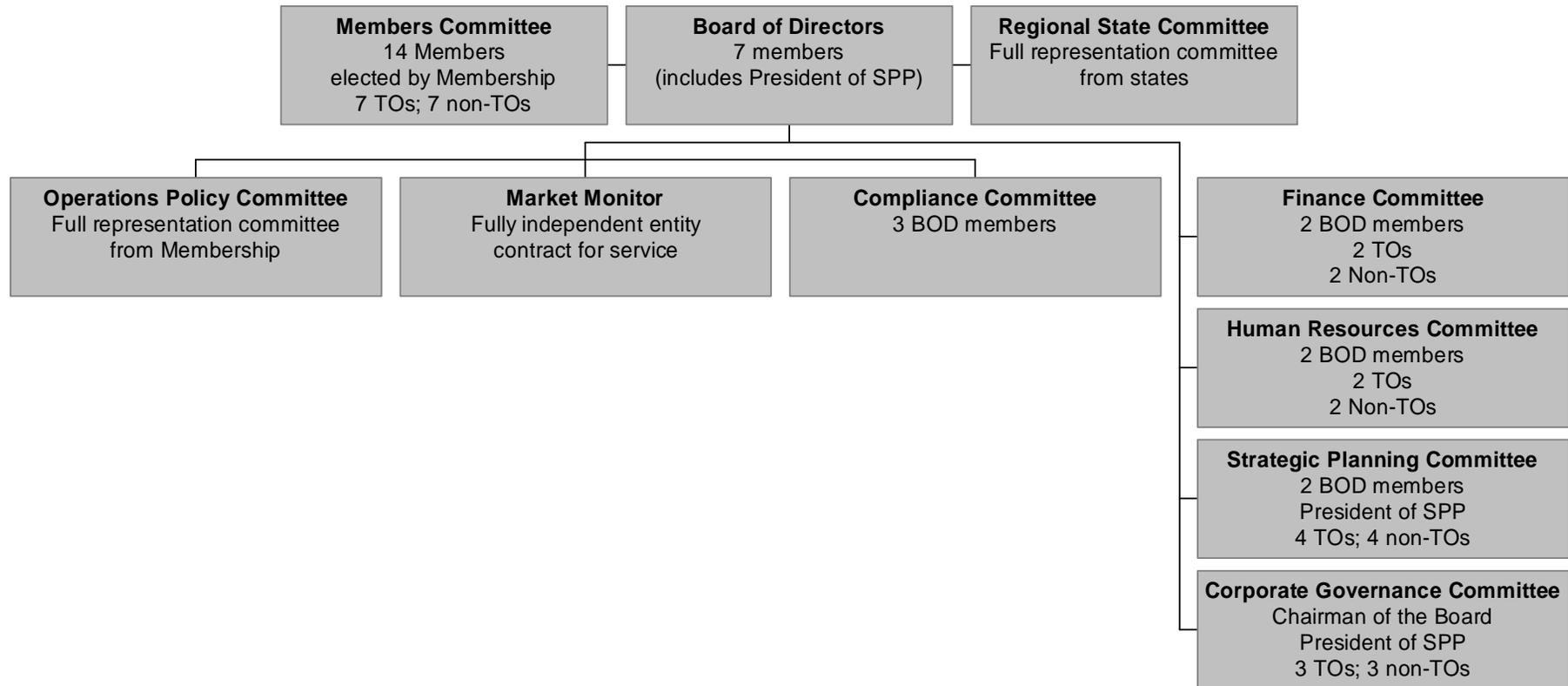
**Transmission Working Group**

- |      |                   |   |
|------|-------------------|---|
| (C)  | Frizzell, Ronnie  | Arkansas Electric Cooperative Corporation |
| (VC) | Williams, Noman   | Sunflower Electric Power Corp.            |
| (L)  | Kistner, Jim      | Arkansas Electric Cooperative Corporation |
| (L)  | Mitchell, Chuck   | Union Electric Company                    |
| (L)  | Nagle, Makarand   | Entergy Services, Inc.                    |
| (L)  | Stepanek, Curtis  | Union Electric Company                    |
|      | Conus, Howard     | City Utilities (Springfield, MO)          |
|      | Crissup, Phil     | OG+E Electric Services                    |
|      | Cude, Bruce       | Xcel Energy                               |
|      | Fulton, John      | Xcel Energy                               |
|      | McGarrah, Sam     | Empire District Electric Company          |
|      | McGee, Matt       | American Electric Power                   |
|      | Myers, Alan       | Aquila, Inc.                              |
|      | Rust, Bill        | Duke Energy Trading & Marketing           |
|      | Sargent, Dave     | Southwestern Power Administration         |
|      | Simms, James      | Cleco Power, LLC                          |
|      | Taylor, Donald D. | Westar Energy                             |
|      | Useldinger, Jim   | Kansas City Power & Light Company         |
|      | Williams, Mitch   | Western Farmers Electric Cooperative      |
|      | Worf, Mark        | Sunflower Electric Power Corp.            |
|      | Wyble, Harold     | Kansas City Power & Light Company         |
| (S)  | Lau, Alex         |   |



# SPP Organizational Chart

## post-RTO recognition



Highlighted names indicate new members.

**pre-RTO**

**Compliance Working Group**

Dave Christiano (C)

Mike McGeeney

Ron Ciesiel (S)



**post-RTO**

**Compliance Committee**

(3 BOD members)

Phyllis Bernard

Josh Martin

Quentin Jackson

Ron Ciesiel (S)

Highlighted names indicate new members.

**pre-RTO**

**Employee Benefits Working Group**

Jim Eckelberger (C)

Nick Brown

Harry Dawson

Trudy Harper

Quentin Jackson

Richard Spring

Tom Dunn (S)

---

**post-RTO**

**Human Resources Committee**

(2 BOD members; 2 TOs; 2 non-TOs)

**BOD**

Phyllis Bernard

Quentin Jackson (C)

**TOs**

Richard Spring

KCPL

Mike Deihl

SPA

**Non-TOs**

Harry Dawson

OMPA

Trudy Harper

Tenaska

Tom Dunn (S)

Highlighted names indicate new members.

**pre-RTO**

**Finance Working Group**

Harry Skilton (C)

Nick Brown

Jim Eckelberger

Trudy Harper

Tom Dunn (S)

---

**post-RTO**

**Finance Committee**

(2 BOD members; 2 TOs; 2 non-TOs)

**BOD**

Harry Skilton (C)

Bob Schoenberger

**TOs**

Doug Henry

Westar

Mike Palmer

Empire District

**Non-TOs**

Trudy Harper

Tenaska

Gary Voigt

AECC

Tom Dunn (S)

Highlighted names indicate new members.

**pre-RTO**

**Nominating Task Force**

Dave Christiano (C)

Michael Deihl

Steve Parr

Al Strecker

Gary Voigt

Nick Brown (S)

---

**post-RTO**

**Corporate Governance Committee**

(Chairman; President; 3 TOs; 3 non-TOs)

**BOD**

Jim Eckelberger

Nick Brown

**TOs**

Michael Deihl SPA

Gary Roulet WFEC

Al Strecker OGE

**Non-TOs**

Dave Christiano City Utilities (Springfield)

Steve Parr KEPCO

Jim Stanton Calpine

Stacy Duckett (S)

Highlighted names indicate new members.

**pre-RTO**

**Strategic Planning Committee**

Richard Spring (C)  
Ricky Bittle  
Nick Brown  
Dave Christiano  
Michael Desselle  
Trudy Harper  
Mel Perkins  
Jim Stanton

Nick Brown (S)

---

**post-RTO**

**Strategic Planning Committee**

(2 BOD members; President; 4 TOs; 4 non-TOs)

**BOD**

Nick Brown  
Jim Eckelberger  
Harry Skilton

**TOs**

Mike Palmer	Empire District
Richard Spring (C)	KCPL
Al Strecker [M. Perkins]	OGE
Richard Verret [M. Desselle]	AEP

**Non-TOs**

Ricky Bittle	AECC
Dave Christiano	City Utilities (Springfield)
Steve Parr	KEPCO
Jim Stanton	Calpine

Stacy Duckett (S)

## NERC/NAESB/IRC Representation

NAESB-NERC Joint Interface Committee (JIC).....Nick Brown, SPP

### NERC

Regional Managers Committee .....Nick Brown, SPP

Stakeholders Committee .....Al Strecker, OG+E

    Standing Committee Representation Task Force (SCRTF).....Inactive

Standards Authorization Committee (SAC) .....

    Standards Task Force (STF) .....Inactive

    Standards Transition Task Force (SAC) (inactive) ..... Carl Monroe, SPP

Market Committee (MC) .....William Wylie, OG+E

    Congestion Management Subcommittee (CMS) .....

    Market Redispatch (MRD) .....Inactive

    Long-Term Issues Subcommittee (LTIS).....

    Market Interface Practices Subcommittee (MIPS) .....No members

Operating Committee (OC).....Scott Moore, AEP

    Data Exchange Working Group (DEWG) ..... Scott Aclin, SPP

    Disturbance Analysis Working Group (DAWG)..... Jay Caspary, SPP

    Flow-based Analysis Task Force (FBATF) .....

    Functional Model Review Task Group (FMRTG).....

    Interchange Subcommittee (IS).....

    Transaction Information System Working Group (TISWG).....Inactive

    Interconnected Operations Services Subcommittee (IOSS).....

    Operating Reliability Subcommittee (ORS) .....Lanny Nickell, SPP

    Distribution Factor Working Group (DFWG) .....Wayne Galli, SPP

    Interchange Distribution Calculator Working Group (IDCWG). Robert Rhodes, SPP

    Reliability Coordinator Working Group (RCWG).....Lanny Nickell, SPP

    Personnel Subcommittee (PS) .....John Taylor, Katie Duncan, SPP

    Resources Subcommittee (RS) ..... Carl Monroe, SPP

    Telecommunications Working Group (TWG) ..... Randy Turner, SPP

    Training Resources Working Group (TRWG) .....

Transmission Subcommittee (TS) ..... Tom Stuchlick, Westar

Planning Committee (PC) ..... Mel Perkins, OG+E

Available Transfer Capability (ATCWG) .....Bruce Walkup, SPP

Gas/Electricity Interdependency (GEITF) .....

Interconnection Dynamics Working Group (IDWG) ..... Donald Taylor, WR

Load Forecasting Working Group (LFWG) .....Robert Shields, AECC

Multiregional Modeling Working Group (MMWG) ..... Harvey Scribner, SPP

Planning Reliability Model Task Force (PRMTF) .....No members

Planning Standards (PSS)..... Jay Caspary, SPP

Reliability Assessment Subcommittee (RAS) ..... Jay Caspary, SPP

Data Coordination Working Group (DCWG).....Kevin Goolsby, SPP

Reliability Data, Methods, & Modeling Subcommittee  
(RDMMS)..... Harvey Scribner, SPP

Resources Task Force .....

Critical Infrastructure Protection Advisory Group (CIPAG) ..... Todd Thompson, SPP  
Larry Dolci, KCPL  
Allen Klassen, Westar Energy

Public Key Infrastructure Steering Committee (PKI)..... Kevin Perry, SPP

Process Control Systems Security Task Force (PCSSTF) ..... Coming soon

Compliance Enforcement & Certification Programs

Compliance and Certification Committee (CCC) .....

Enforcement Matrix Self-Directed Work Team (EMSDWT) .....

Compliance & Certification Managers Committee (CCMC) .....Ron Ciesiel, SPP

Compliance Statistics Self Directed Work Team(CSSDWT) .....

Compliance Review Subcommittee (CRS) .....Ron Ciesiel, SPP

Compliance Subcommittee (CS) .....Ron Ciesiel, SPP

Organization Certification Task Force (OCTF) ..... Gerry Burrows, SPP

Personnel Certification Governance committee (PCGC).....

Additional from NERC Roster

Security Process Support System Task Force .....

Technical Steering Committee.....

**NAESB**

- Annual Plan Subcommittee .....
- WEQ Board of Directors .....
- Board Managing Committee .....
- Parliamentary Committee .....
- WEQ RTO/ISO NERC/NAESB Team .....
- WEQ Executive Committee .....
- WEQ Business Practices Subcommittee (BPS) .....
- Inadvertent Interchange Payback Task Force (IIPTF) ..... Carl Monroe, SPP
- Gas Electric Coordination Task Force (GECTF) .....
- WEQ Electronic Scheduling Subcommittee (ESS) .....
- WEQ Glossary Subcommittee .....
- WEQ Information Technology Subcommittee (IT) ..... James Keaton, SPP
- WEQ Seams Subcommittee .....
- WEQ Standards Review Subcommittee (SRS) .....
- Coordinate Interchange Business Practices (CIBP) Task Force .....
- Coordinate Operations Business Practices (COBP) Task Force .....
- Triage Subcommittee.....

**ISO/RTO Council**

- Regulatory & Legislative Committee.....
- Standards Review Committee ..... Carl Monroe, SPP
- Planning Working Group..... Bruce Rew, SPP
- Information Technology ..... Kevin Perry, SPP
- Meta Data Working Group.....
- Security Working Group ..... Kevin Perry, SPP
- IT Architecture ..... James Keaton, SPP

**Southwest Power Pool  
FWG Recommendation  
To the SPP Board of Directors  
January 27, 2004**

Engagement of External Auditors

**Background**

SPP annually engages a Certified Public Accounting firm to audit its financial statements and accounting controls. The audit report serves to document to members, customers, and other interested parties that the accounting practices and financial reporting of SPP comply with generally accepted accounting principles in the United States of America.

**Analysis**

SPP has engaged Deloitte & Touche since incorporation to audit SPP's financial statements and accounting practices for the purpose of expressing an opinion on the financial statements. Due to its history with SPP and its extensive electric energy practice, Deloitte & Touche remains an acceptable firm to perform this audit. Deloitte & Touche estimate fees to perform this audit will total \$38,500. Deloitte & Touche will be able to begin this audit on March 1 and complete the audit on March 19. A final report should be issued on or before May 1.

**Recommendation**

The Finance Working Group recommends the SPP Board of Directors approve engagement of Deloitte & Touche LLP to audit and report on SPP's financial statements for the year ending December 31, 2003.

**Approved:**

**Action Requested:** Approve Recommendation

Deloitte & Touche LLP  
18th Floor  
111 Center Street  
Little Rock, Arkansas 72201-4420

Tel: (501) 370-3600  
Fax: (501) 374-4809  
www.deloitte.com

**Deloitte  
& Touche**

December 16, 2003

The Finance Working Group of Southwest Power Pool  
Mr. Harry Skilton, Chairman of the Finance Working Group  
415 North McKinley, Suite 800  
Little Rock, Arkansas 72205

Southwest Power Pool, Inc.  
Mr. Tom Dunn  
415 North McKinley, Suite 800  
Little Rock, Arkansas 72205

Dear Sirs:

Deloitte & Touche LLP ("D&T") is pleased to serve as independent accountants and auditors for Southwest Power Pool, Inc. (the "Company"). Mr. Keith Conine will be responsible for the services that we perform for the Company. He will be assisted by Will Rusher, engagement manager. He will, as considered necessary, call on other individuals with specialized knowledge, either in this office or elsewhere in our firm, to assist in the performance of our services.

While auditing and reporting on the Company's annual financial statements for the year ending December 31, 2003 is the service that we are to provide under this engagement letter, we would also be pleased to assist the Company on issues as they arise throughout the year. Hence, we hope that the Company will call Keith or Will whenever the Finance Working Group of the Company (the "FWG") and management believes they can be of assistance.

We will perform this engagement subject to the terms and conditions set forth herein.

#### **AUDIT OF FINANCIAL STATEMENTS**

Our audit of the Company's financial statements for the year ending December 31, 2003 will be conducted in accordance with auditing standards generally accepted in the United States of America (hereinafter referred to as "generally accepted auditing standards").

We will plan and perform our audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud. However, because of the characteristics of fraud, a properly planned and performed audit may not detect a material misstatement. Therefore, an audit conducted in accordance with generally accepted auditing standards is designed to obtain reasonable, rather than absolute, assurance that the financial statements are free of material misstatement. An audit is not designed to detect error or fraud that is immaterial to the financial statements.

**Deloitte  
Touche  
Tohmatsu**

An audit includes obtaining an understanding of internal control sufficient to plan the audit and to determine the nature, timing, and extent of audit procedures to be performed. An audit is not designed to provide assurance on internal control or to identify reportable conditions.

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

The objective of our audit is the expression of an opinion on the fairness of the presentation of the Company's financial statements in conformity with accounting principles generally accepted in the United States of America (hereinafter referred to as "generally accepted accounting principles"), in all material respects. Our ability to express an opinion and the wording of our opinion, will, of course, be dependent on the facts and circumstances at the date of our report. If, for any reason, we are unable to complete the audit or are unable to form or have not formed an opinion, we may decline to express an opinion or decline to issue a report as a result of this engagement. If we are unable to complete our audit or if our auditors' report requires modification, the reasons therefore will be discussed with the FWG and the Company's management.

#### **THE FINANCE WORKING GROUP'S RESPONSIBILITY**

As independent auditors of the Company, we acknowledge that the Board of Directors ("BOD") on recommendation of the FWG is directly responsible for the appointment, compensation, and oversight of our work and, accordingly, we will report directly to the FWG. We understand that the services to be performed under this engagement letter have been approved by the BOD in accordance with its established preapproval policies and procedures. Additionally, the FWG is responsible for informing us of its views about the risk of fraud within the Company and its knowledge of any fraud or suspected fraud affecting the Company.

#### **MANAGEMENT'S RESPONSIBILITY**

The financial statements are the responsibility of the Company's management. In this regard, management has the responsibility for, among other things: (1) establishing and maintaining effective internal control over financial reporting, (2) identifying and ensuring that the Company complies with the laws and regulations applicable to its activities and informing us of any known material violations of such laws or regulations, (3) properly recording transactions in the accounting records, (4) adjusting the financial statements to correct material misstatements, (5) making appropriate accounting estimates, (6) safeguarding assets, (7) the overall accuracy of the financial statements and their conformity with generally accepted accounting principles, and (8) making all financial records and related information available to us.

Additionally, management is responsible for the design and implementation of programs and controls to prevent and detect fraud and for informing us about all known or suspected fraud affecting the Company involving, (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Management is also responsible for informing us of its knowledge of any allegations of fraud or suspected fraud affecting the Company received in communications from employees, former employees, analysts, regulators, or others.

We will make specific inquiries of the Company's management about the representations embodied in the financial statements. As part of our audit procedures, we will request that management provide us with a representation letter acknowledging management's responsibility for the preparation of the financial statements and affirming management's belief that the effects of any uncorrected financial statement misstatements aggregated by us during the current audit engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole. We will also request that management confirm certain representations made to us during our audit. The responses to those inquiries and related written representations of management required by generally accepted auditing standards are part of the evidential matter that we will rely on as auditors in forming our opinion on the Company's financial statements. Because of the importance of management's representations, the Company agrees to release and indemnify D&T, and its personnel from all claims, liabilities, and expenses relating to our services under this engagement letter attributable to any misrepresentation by management.

If the Company intends to publish or otherwise reproduce in any document our report on the Company's financial statements, or otherwise make reference to D&T in a document that contains other information in addition to the audited financial statements (e.g., in a periodic filing with a regulator, in a debt or equity offering circular or in a private placement memorandum), thereby associating D&T with such document, the Company agrees that its management will provide us with a draft of the document to read and obtain our approval for the inclusion or incorporation by reference of our report, or the reference to D&T, in such document before the document is printed and distributed. The inclusion or incorporation by reference of our report in any such document would constitute the reissuance of our report. The Company also agrees that Company management will notify us and obtain our approval prior to including our report on an electronic site.

Our engagement to perform the services described above does not constitute our agreement to be associated with any such documents published or reproduced by or on behalf of the Company. Any request by the Company to reissue our report, to consent to its inclusion or incorporation by reference in an offering or other document, will be considered based on the facts and circumstances existing at the time of such request. The estimated fees outlined herein do not include any services that would need to be performed in connection with any such request; fees for such services (and their scope) would be subject to our mutual agreement at such time as we are engaged to perform the services and would be described in a separate engagement letter.

It is also management's responsibility to ensure that the Company has not caused D&T's independence to be impaired by hiring a former or current D&T partner, principal, or professional employee in a key position, as defined in the *Code of Professional Conduct* of the American Institute of Certified Public Accountants ("AICPA"), that would cause a violation of the AICPA *Code of Professional Conduct* or other applicable independence rules. Any employment opportunities with the Company for a former or current D&T partner, principal, or professional employee should be discussed with Mr. Keith Conine before entering into substantive employment conversations with the former or current D&T partner, principal, or professional employee. For the purpose of this paragraph, "D&T" shall mean Deloitte & Touche LLP and Deloitte Touche Tohmatsu, its member firms and the affiliates of Deloitte & Touche LLP, Deloitte & Touche Tohmatsu, and its member firms.

#### **OTHER COMMUNICATIONS ARISING FROM THE AUDIT**

In connection with the planning and the performance of our audit, generally accepted auditing standards require that certain matters be communicated to the FWG. We will report directly to the FWG any fraud of which we become aware that involves senior management, and any fraud (whether caused by senior management or other employees) of which we become aware that causes a material misstatement of the financial statements. We will report to senior management any fraud

perpetrated by lower level employees of which we become aware that does not cause a material misstatement of the financial statements; however, we will not report such matters directly to the FWG, unless otherwise directed by the FWG.

We will inform the appropriate level of management of the Company and determine that the FWG is adequately informed with respect to illegal acts that have been detected or have otherwise come to our attention in the course of our audit, unless the illegal act is clearly inconsequential.

We will also report directly to the FWG and the Company's management matters coming to our attention during the course of our audit that we believe are reportable conditions. Reportable conditions are significant deficiencies in the design or operation of internal control that could adversely affect the Company's ability to initiate, record, process, and report financial data consistent with the assertions of management in the financial statements.

In addition, we will communicate to the FWG, or determine that the FWG is informed, about certain other matters related to the conduct of our audit, including, when applicable:

- Our responsibility as auditors under generally accepted auditing standards
- Significant accounting policies
- Management judgments and accounting estimates
- Audit adjustments that have a significant effect on the financial reporting process
- Other information in documents containing audited financial statements
- Disagreements with management
- Consultation by management with other accountants on significant matters
- Difficulties encountered in performing the audit
- Major issues discussed with management prior to our retention as auditors.

We may also have other comments for the FWG and management on matters we have observed and possible ways to improve the efficiency of the Company's operations or other recommendations concerning internal control.

#### **COORDINATION OF THE AUDIT**

Assistance to be supplied by the Company's personnel, including preparation of schedules and analyses of accounts, is described in a separate attachment. Timely completion of the Company's work will facilitate the completion of our audit by the targeted completion dates (to be determined at a later date). We will notify you promptly of any circumstances we encounter that could significantly change the targeted completion dates. Appendix A provides a description of circumstances that could significantly change the targeted completion dates.

#### **FEES**

Our fees are based on the amount of time required at various levels of responsibility, plus actual out-of-pocket expenses (e.g., travel, typing, telephone). We estimate that our total fees for this audit will be \$38,500. The estimate of our fees is based on certain assumptions. To the extent that certain circumstances, as listed in Appendix A, arise during the engagement, our fee estimated may be significantly affected and additional fees may be necessary. We will notify you promptly of any

circumstances we encounter that could significantly affect our estimate and discuss with you any additional fees, as necessary. Additional services provided beyond the described scope of services will be billed separately.

If the above terms are acceptable to the Company, and the services outlined are in accordance with your understanding, please sign the copy of this letter in the space provided and return it to us.

Yours truly,

*Delittle & Touche LLP*

Accepted and agreed to by the Board of Directors of Southwest Power Pool:

\_\_\_\_\_  
Signature/Title

\_\_\_\_\_  
Date

Accepted and agreed to by Southwest Power Pool:

\_\_\_\_\_  
Signature/Title

\_\_\_\_\_  
Date

**SOUTHWEST POWER POOL  
CIRCUMSTANCES AFFECTING TIMING AND FEE ESTIMATE  
YEAR ENDED DECEMBER 31, 2003**

The fees quoted for Southwest Power Pool (the "Company") are based on certain assumptions. Circumstances may arise during the engagement that may significantly affect the targeted completion dates and our fee estimate. As a result, additional fees may be necessary. Such circumstances include but are not limited to the following:

1. Changes to the timing of the engagement at the Company's request. Changes to the timing of the engagement usually requires reassignment of personnel used by Deloitte & Touche LLP ("D&T") in the performance of services hereunder. However, because it is often difficult to reassign individuals to other engagements, D&T may incur significant unanticipated costs.
2. All audit schedules are not (a) provided by the Company on the date requested, (b) completed in a format acceptable to D&T, (c) mathematically correct, or (d) in agreement with the appropriate Company records (e.g., general ledger accounts). D&T will provide the Company with a separate listing of required schedules and deadlines.
3. Electronic files in an appropriate format and containing the information requested are not provided by the Company on the date requested for our use in performing file interrogation. D&T will provide the Company with a separate listing of the required files and the dates the files are needed.
4. Weaknesses in the internal control structure.
5. Significant new issues or changes as follows:
  - a. Significant new accounting issues that require an unusual amount of time to resolve.
  - b. Significant changes in accounting policies or practices from those used in prior years.
  - c. Significant changes or transactions that occur prior to the issuance of our reports.
  - d. Significant changes in the Company's accounting personnel, their responsibilities, or their availability.
  - e. Significant changes in auditing requirements set by regulators.
6. Significant delays in the Company's assistance in the engagement or delays by the Company in reconciling variances as requested by D&T. All invoices, contracts, and other documents, which we will identify for the Company, are not located by the Company's personnel or made ready for our easy access.
7. The engagement team, while performing work on the Company's premises, is not provided with access to the Internet via the Company's existing network or through a T1, DSL, or cable connection for purposes of conducting the engagement.
8. Deterioration in the quality of the Company's accounting records during the current-year engagement in comparison with the prior-year engagement.

9. A trial balance in financial-statement format, which references to supporting detailed working papers (by general ledger account number), is not provided by the Company. All entries are not posted to this trial balance prior to our receiving it. Draft financial statements that agree with the trial balance and are internally referenced to supporting documentation (for footnotes and cash flow statements) are not prepared by the Company's personnel.
10. A significant level of proposed audit adjustments are identified during our audit.
11. Changes in audit scope caused by events that are beyond our control.
12. Untimely payment of our invoices as they are rendered.



**Southwest Power Pool, Inc.**  
**OPERATIONS POLICY COMMITTEE**  
**Report and Recommendations to the Board of Directors**  
**January 27, 2004**

**Current Priorities/Issues Being Addressed**

At its January 15, 2004 meeting, the Operations Policy Committee (OPC) unanimously approved the work of the Regional Tariff Working Group (RTWG) on several Tariff maintenance items that have been discussed and adopted. The nature of and rationale for these modifications is set out below.

**Background and Analysis**

Modifications to Tariff Schedule 1 and new Schedule 1-A

At its June 5, 2003 meeting, the RTWG approved modifications to Schedule 1 and a new Schedule 1-A. Existing Schedule 1 has been restructured to separate the application of charges for control area scheduling (Schedule 1) from the application of charges for recovery of SPP's administrative costs (Schedule 1-A).

Schedule 1-A has been modified to parallel the changes to the membership dues assessment process reflected in the SPP Bylaws change. The changes to the proposed Schedule 1A provide for the calculation of an administration charge applicable for the ensuing calendar year based on projected budgeted expenses for that year divided by the projected annual Schedule 1A billing units for the same calendar year, with any over or under recovery of such expenses to be carried into the subsequent year calculation. The revised Tariff language also indicates that SPP shall recover 100% of its total expenses through the administration charge. The \$.20 per MW per hour cap was retained. In addition to this change, the billing determinant to be used for the administration charge for network service was clarified to be the "...12 month average of the Transmission Customer's coincident Zonal Demands used to determine the Demand Charges under Schedule 9 multiplied by the number of hours of the applicable month".

Tariff Modifications Necessary to Clarify the Network Service Billing Process

At its June 5, 2003 meeting the RTWG approved modifications to Sections 1.16 and Schedule 9 to clarify certain aspects of the network service billing process.

Revision to the Billing and Payment Section of the Tariff

At its July 14, 2003 meeting the RTWG approved modifications to the Billing and Payment Section (Section 7) of the SPP OATT. Generally, the modifications provide for the disbursement of funds to Transmission Owners after they are collected from customers rather than before, the payment of interest on deposits in an amount equal to the amount earned by SPP while the funds are in its possession, and a reduction in exposure related to collections.

Revisions to Tariff Attachment P

Attachment P has been revised to be in full compliance with Order 638 and to correct typographical errors.

Documents to review this work be accessed by using the following link:

[http://www.spp.org/Doc\\_Results.asp?Group\\_id=159](http://www.spp.org/Doc_Results.asp?Group_id=159)



**Recommendation:**

The OPC recommends that the Board of Directors approve the following items:

1. The modifications to Tariff Schedule 1 and new Schedule 1A.
2. The Tariff modifications necessary to clarify the network service billing process.
3. The revision to the billing and payment section of the Tariff.
4. The revisions to Tariff Attachment P.

**Approved:** Operations Policy Committee January 15, 2004

**Action Requested:** Approval of the OPC recommendation

**Attachment:** See files provided by link



**Southwest Power Pool, Inc.**  
**OPERATING RELIABILITY WORKING GROUP**  
**Report to the Board of Directors**  
**January 15, 2003**

**Background**

The SPP Criteria language has not been completely updated to incorporate the NERC change from Security Coordination (Coordinator) to Reliability Coordination (Coordinator). At its December meeting the ORWG requested that SPP Staff to insert a statement into Criteria indicating the interchangeability of these terms. The proposed change has been made in the Foreword of the SPP Criteria.

**Analysis**

**Recommendation**

The ORWG recommends the OPC approve the proposed change to the Foreword of the SPP Criteria.

**Approved:** Operating Reliability Working Group December 17, 2003

**Action Requested:** Approve SPP Criteria Foreword change

# Southwest Power Pool

## CRITERIA

### FOREWORD

All members of Southwest Power Pool (SPP) adopted the NAPSIC (now North American Electric Reliability Council or NERC) Operating Guides on March 11, 1970. Over the years, these documents have developed into policies, procedures, principles, criteria, standards and guides. In some instances, the NERC documents are not in sufficient detail to meet specific needs of SPP. Additional necessary details have been adopted by SPP as Criteria. This Criteria is considered as the policies, standards or principles of conduct by which the coordinated planning and operation of the interconnected electric system is achieved. Reference to SPP in terms of responsibilities for activities means SPP organizational groups which are defined in SPP Bylaws and the SPP Directory. Reference to the SPP bulk electric system means the combined interconnected electric systems of members. [Reliability Coordination \(Coordinator\) and Security Coordination \(Coordinator\) are used interchangeably in this Criteria.](#)



**Southwest Power Pool, Inc.  
OPERATIONS POLICY COMMITTEE  
Report to the Board of Directors  
January 27, 2004**

**Background**

TWG created the SPP Criteria Review Task Force in 2003 given the need to review SPP Criteria 3, 4, and 12 to determine any needed modifications due to the development of a more formal regional planning process. This task force also evaluated SPP Staff's proposed revisions to Criteria 4 to accurately reflect SPP processes. The Task Force was chaired by Alan Myers, who was assisted primarily by Bruce Cude and Sam McGarrah.

**Analysis**

Global changes were made to reflect the TAWG name and acronym change to TWG.

The following changes were made to Criterion 3:

Insert definition for cascading consistent with that for NERC

Include language in Section 3.1 to reference the regional planning process

Add language in 3.3 referencing participation and cooperation with the regional planning process

The following changes were noted for Criterion 4:

A few minor wording changes needed, such as changing NERC to FERC in Section 4.1.13, inserting the word "not" in Section 4.1.21.

4.2.9.1 Impacts of Existing Commitments clarifying comment to note that the impact of redirects and renewals are incorporated into the analysis

4.4.2.3 Default Parameters clarifying changes to note that default export and import participation factors are based on Pmax, Pmin and Pgen, not machine base.

4.5.4 Transfer Distribution Factor Determinations (TDF) clarifying changes required to accurately represent default methodologies in place.

No changes were necessary for Criterion 12 at this time.

TWG noted that these changes need to be coordinated with the ORWG too. The TWG has decided to hold off on proposing any changes to the operating and planning horizons until the new tariff is filed.

**Recommendation**

The TWG approved the noted changes to Criteria 3 & 4 and requested that they be forwarded to the OPC, Board and ORWG.

<b>Approved:</b>	Transmission Working Group Operations Policy Committee	November 5, 2003 January 15, 2004
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**Action Requested:** Approve Recommended changes to Criteria 3 and 4

### 3.0 REGIONAL TRANSMISSION PLANNING

#### 3.1 Concepts

The interconnected transmission system should be capable of performing reliably under a wide variety of expected system conditions while continuing to operate within equipment and electric system thermal, voltage, and stability limits. Electric systems must be planned to withstand contingencies and maintenance outages. Extreme event contingencies which measure the robustness of the electric systems should be evaluated for risks and consequences. The *NERC Planning Standards* define specific requirements that provide a high degree of reliability for the large interconnected electric system. SPP provides additional coordinated regional transmission planning requirements to promote reliability through this Criterion and related “Coordinated Planning Procedures” in the *SPP Open Access Transmission Tariff*.

#### 3.2 Definitions

NERC (NAERO – North American Electric Reliability Council (North American Electric Reliability Organization)) – An organization of all segments of the electric industry that recommends, sets, oversees, and implements policies and standards to ensure the continued reliability of North America’s interconnected electric grids.

Nominal Voltage – The root-mean-square, phase-to-phase voltage by which the system is designated and to which certain operating characteristics of the system are related. Examples of nominal voltages are 500 kV, 345 kV, 230 kV, 161 kV, 138 kV, 115 kV and 69 kV.

Cascading - Cascading is the uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in widespread service interruption which cannot be restrained from sequentially spreading beyond an area predetermined by appropriate studies.

#### 3.3 Coordinated Planning

SPP members operate in a highly interconnected system and shall coordinate transmission planning. This coordination shall include voluntary efforts between interconnected SPP members and non-members. SPP will be the primary responsible party for coordinated transmission planning.

The planning and development of transmission facilities will be coordinated with neighboring systems to preserve the reliability benefits of interconnected operations. The

transmission systems should be planned to avoid excessive dependence on any one transmission circuit, structure, right-of-way, or substation.

### **3.3.1 Planning Criteria**

Individual members may develop Planning Criteria that shall, at a minimum, conform to *NERC Planning Standards* and *SPP Criteria*. Individual member Criteria shall consider the following:

- a. Excessive concentration of power being carried on any single transmission circuit, multi-circuit transmission line, or right-of-way, as well as through any single transmission station shall be avoided.
- b. Intra-regional inter-regional, and trans-regional power flows shall not result in excessive risk to the electric system under normal and contingency conditions as outlined in this criteria.
- c. Switching arrangements shall be planned to permit effective maintenance of equipment without excessive risk to the electric system.
- d. Switching arrangements and associated protective relay systems shall be planned to not limit the capability of a transmission path to the extent of causing excessive risk to the electric system.
- e. Sufficient reactive capacity shall be planned within the SPP electric system at appropriate places to maintain transmission system voltages within plus or minus 10% of nominal on load serving buses or as determined by the transmission owner and user under contingency conditions.
- f. Facilities shall be rated as assigned in *SPP Criteria* section 12.

### **3.3.2 Planning Assessment Studies**

Individual transmission owners shall perform individual transmission planning studies and shall cooperate in SPP and Inter-Regional studies. These planning studies are for the purposes of identifying any planning criteria violations that may exist and developing plans to mitigate such violations. Members shall contact the Transmission Assessment Working Group whenever new facilities are in the conceptual planning stage so that optimal integration of any new facilities and potentially benefiting parties can be identified. Studies affecting more than one system owner or user will be conducted on a joint system basis. Reliability studies will examine post-contingency steady-state conditions as well as stability, overload, cascading, and voltage collapse conditions. Updates to the transmission assessments will be performed, as appropriate, to reflect anticipated significant changes in system conditions.

### 3.4 Transmission Contingency

The transmission system of the SPP region shall be planned and constructed so that the contingencies as set forth in the Criteria will meet the applicable *NERC Planning Standards* for System Adequacy and Security – Transmission System Table I (hereafter referred to as NERC Table I) and its applicable standards and measurements. Extreme contingency evaluations will be conducted to measure the robustness of the transmission systems and to maintain a state of preparedness to deal effectively with such events. Although it is not practical to construct a system to withstand all possible extreme contingencies ~~without cascading~~, it is desirable to understand the risks and consequences of scope of such cascading or system instability such events and to attempt to limit the significant economic and social impacts that may result.

#### 3.4.1 Adequacy

##### 3.4.1.1 Base Case

The Model Development Working group (MDWG) will assemble and verify base case models. These models will maintain at least the following:

- ~~§~~ System facilities shall be modeled to reflect normal operation.
- ~~§~~ Line and equipment loading shall be within applicable thermal rating limits.
- ~~§~~ Voltage levels shall be maintained within applicable limits.
- ~~§~~ All customer demands shall be supplied, and all contracted firm (non-recallable reserved) transfers shall be maintained.
- ~~§~~ Stability (dynamic and steady state) of the network shall be maintained.
- ~~§~~ Cascading outages shall not occur.

The MDWG shall work with the Transmission ~~Assessment~~ Working Group (TAWGTWG) to resolve issues not considered data errors.

##### 3.4.1.2 Loss of Single Component

The MDWG will run contingency studies under the following:

- ~~§~~ Initiating incident results in a single element out of service.
- ~~§~~ Line and equipment loadings shall be within applicable rating limits.
- ~~§~~ Voltage levels shall be maintained within applicable limits as specified in 3.3.1e.
- ~~§~~ No loss of customer demand (except as noted in NERC Table I, Footnote b), nor the curtailment of contracted firm (non-recallable reserved) transfers shall be required.
- ~~§~~ Stability (angular and voltage) of the network shall be maintained.
- ~~§~~ Cascading outages shall not occur.

### 3.4.1.3 Loss of Two or More Components

The MDWG will run contingency studies under the following:

- ~~etc~~ Initiating incident may result in two or more (multiple) components out of service.
- ~~etc~~ Line and equipment loadings shall be within applicable thermal rating limits.
- ~~etc~~ Voltage levels shall be maintained within applicable limits as specified in 3.3.1e.
- ~~etc~~ Stability (angular and voltage) of the network shall be maintained.
- ~~etc~~ Planned outages of customer demand or generation (as noted in NERC Table I) may occur, and contracted firm (non-recallable reserved) transfers may be curtailed.
- ~~etc~~ Cascading outages shall not occur.

### 3.4.1.4 Extreme Event

The ~~TAWGTWG~~ will run contingency studies where extreme contingency events could lead to uncontrolled cascading outages or system instability. The ~~TAWGTWG~~ shall document the measures and procedures to mitigate or eliminate the extent and effects of those events and may at their discretion recommend such measures and procedures.

## 3.4.2 Study Requirements

System contingency studies should be based on system simulation models that should incorporate:

- ~~etc~~ Evaluation of reactive power resources,
- ~~etc~~ Existing protection systems, and
- ~~etc~~ Any existing backup or redundancy protection systems.

These studies will assist to determine that existing transmission protection schemes are sufficient to meet the system performance levels as defined in appropriate Category of NERC Table I.

Studies will consider all contingencies applicable to the appropriate Category, but will evaluate only the most critical, and document the selection rationale. Studies will be conducted or reviewed annually, shall cover seasonal or expected critical system conditions for near (current or next year) and intermediate (two to five year recommended) planning horizons, and address both intra- and interregional reliability. Detailed analyses of the systems will not be conducted annually if changes to system conditions do not warrant such analyses.

The longer-term (beyond five years) simulations will identify concerns that may surface in

the period beyond the more certain intermediate year period. Focus of simulations for the longer term will be on marginal system conditions evident from the intermediate year cases. Cases beyond the five-year horizon will be evaluated as needed to address identified marginal conditions.

### **3.4.3 Mitigation Plans**

When simulations indicate an inability of the systems to respond as prescribed by this Criterion, responsible entities must provide a written summary of their mitigation plans, including a schedule for implementation, to achieve the required system performance throughout the planning horizon. Mitigation plan summaries should discuss expected required in-service dates of facilities, should consider lead-times necessary to implement plans, and will be reviewed for continuing need in subsequent annual assessments.

### **3.4.4 Reporting Requirements**

Entities responsible for the reliability of interconnected transmission systems shall report annually on the performance of their systems in connection with NERC *Planning Standard* I.A.S1 to the SPP Region. The SPP will annually provide a summary of intra- and interregional studies to the NERC Adequacy Committee (RAS). Regional and interregional reliability assessments shall include the results of the system simulation testing as stated in this Standard I.A.

## **3.5 Protective Relaying, Monitoring And Controls**

Protective relaying, communications and instrumentation play an important role in maintaining the reliability of the bulk electric system. Protective Relay Systems (PRS) requirements shall be taken into account during the planning and design of generation, transmission and substation configurations. If configurations are proposed that require PRS that do not conform to this criteria or to accepted IEEE/ANSI practice, then the entities affected shall negotiate a solution. The principles for planning additions in these categories are set forth in this Criteria.

- a. The bulk power protective relay system design shall have as its objective rapid clearing of all faults, with no fault permitted to remain uncleared despite the failure of any single protective system component. To accomplish this, transmission protection systems shall be installed as specified in Transmission Protection Systems Criteria 7.2.
- b. Control areas shall maintain communications systems to their generating stations, operation centers and to neighboring utilities which shall provide adequate

- communication in the event of failure of any one element of the systems. In general, such communication systems should not be susceptible to failure during an interruption of the A.C. power supply in any part or all of their areas.
- c. Loadings on the bulk electric system shall be monitored continually to insure that operation is within safe limits.
  - d. Suitable instrumentation, and/or other devices, shall be installed to measure appropriate quantities at key points in the electric system with appropriate automatic alarms.
  - e. Fault recording devices as described in Criteria 7.1 shall be installed at appropriate points within the SPP region so that outages and short circuits can be analyzed and protective relay performance studied. In addition, Disturbance Monitoring Equipment shall be provided to meet Criteria 7.1 so that system disturbances may be analyzed.
  - f. Underfrequency Load Shedding equipment shall be installed pursuant to Criteria 7.3 for the purpose of maintaining a stable operating frequency.
  - g. As specified in Criteria 7.4, Special Protection Systems when installed shall detect abnormal system conditions and take pre-planned, coordinated, corrective action to provide acceptable system performance.
  - h. When Undervoltage Load Shedding equipment is installed by a member system as specified in Criteria 7.5 for the purpose of stabilizing interconnected systems and mitigating the effects of voltage collapse, then this program shall coordinate with all other schemes of which include system protection, Underfrequency Load Shedding, Automatic Restoration of Load and Generation Control and Protection.
  - i. Given the requirements of Criteria 7.6, Automatic Restoration of Load schemes may be installed by member systems to expedite load restoration. These systems shall be coordinated with all other schemes such as system protection, Underfrequency Load Shedding, Undervoltage Load Shedding, and Generation Control and Protection. These systems shall operate only after underfrequency and/or undervoltage events.
  - j. Generation Control and Protection schemes shall be designed pursuant to Criteria 7.7 to provide a reasonable balance between the need for the generator to support the interconnected electric systems during abnormal conditions and the need to adequately protect generator equipment from damage.

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### **4.0 REGIONAL CALCULATION OF AVAILABLE TRANSFER CAPABILITY**

SPP takes a regional approach in the determination of Available Transfer Capability (ATC). The regional approach calls for SPP to evaluate the ~~inter-area~~ transfer capability of its Transmission Owners. This approach provides a high level of coordination between ATC reported by SPP and Transmission Owners on SPP Open Access Same-time Information Network (OASIS) nodes. Likewise, when Transmission Owners calculate ATC, they are responsible to coordinate the ATC between their areas. If there is a dispute concerning the ATC, the SPP Transmission [Assessment Working Group \(TAWGTWG\)](#) will act as the technical body to determine the ATC to be reported.

This Criteria provides Transmission Owners and the SPP Transmission Provider flexibility to revise the ATC as needed for changes in operating conditions, while providing for unique modeling parameters of the areas. The SPP Transmission Provider calculations do not preclude any studies made by Transmission Owners in accordance with their individual tariffs, which may contain specific methodologies for evaluating transmission service requests.

Transfer capabilities are calculated for two different commercial business applications; a) for use as default values for Transmission Owners to post on their OASIS node for business under their transmission tariffs and b) for use by SPP in administering the SPP Open Access Transmission Tariff (SPP OATT).

The SPP utilizes a “constrained element” approach in determining ATC. This approach is referred to as a Flowgate ATC methodology. Constrained facilities, termed “Flowgates”, used in this approach are identified primarily from a non-simultaneous transfer study using standard incremental transfer capability techniques that recognize thermal, voltage and contractual limitations. Stability limitations are studied as needed. Flowgates serve as proxies for the transmission network and are used to study system response to transfers and contingencies. Using Flowgates with pre-determined ratings, this process is able to evaluate the ATC of specific paths on a constrained element basis (Flowgate basis) while considering the simultaneous impact of existing transactions.

The calculation of ATC is a very complex and dynamic procedure. SPP realizes that there are many technical and policy issues concerning the calculation of ATC that will evolve with industry changes. Therefore, the SPP Security Working Group and the SPP Transmission Assessment Working Group will have the joint authority to modify the implementation of this Section of the Criteria based on experience and improvements in technology and data coordination. Any

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changes made by these groups will be subject to formal approval as outlined in the SPP By-laws at the first practical opportunity.

### **4.1 DEFINITIONS**

#### **4.1.1 Base Loading, Firm and Non-Firm (FBL & NFBL)**

The determined loading on a Flowgate resulting from the net effect of modeled existing transmission service commitments for the purpose of serving firm network load and impacts from existing OATT OASIS commitments.

#### **4.1.2 Capacity Benefit Margin**

The amount of Flowgate capacity reserved by load serving entities to ensure access to generation from interconnected systems to meet generation reliability requirements.

#### **4.1.3 Contractual Limit**

Contractual arrangements between Transmission Providers that define transfer capability between the two.

#### **4.1.4 Critical Contingency**

Any generation or transmission facility that, when outaged, is deemed to have an adverse impact on the reliability of the transmission network.

#### **4.1.5 Designated Network Resources (DNR)**

Any designated generation resource that can be called upon at anytime for the purpose of serving network load on a non-interruptible basis. The designated generation resource must be owned, purchased or leased by the owner of the network load.

#### **4.1.6 Emergency Voltage Limits**

The operating voltage range on the interconnected system that is acceptable for the time sufficient for system adjustments to be made following a Critical Contingency.

#### **4.1.7 Firm Available Transfer Capability (FATC)**

The determined transfer capability available for firm Transmission Service as defined by the FERC pro forma Open Access Transmission Tariff (OATT) or any direction of interest on a transmission network between generation groups and/or system load for which commercial service may be desired.

**4.1.8 First Contingency Incremental Transfer Capability (FCITC)**

*NERC Transmission Transfer Capability*, reference document (May 1995) defines FCITC as:

"The amount of power, incremental and above normal base transfers, that can be transferred over the interconnected transmission systems in a reliable manner based on all of the following conditions:

1. For the existing or planned system configuration, and with normal (pre-contingency) operating procedures in effect, all facility loadings are within normal ratings and all voltages are within normal limits,
2. The electric systems are capable of absorbing the dynamic power swings, and remaining stable, following a disturbance that results in the loss of any single electric system element, such as a transmission circuit, transformer or generating unit, and,
3. After the dynamic power swings subside following a disturbance that results in the loss of any single electric system element as described in 2 above, and after the operation of any automatic operating systems, but before any post-contingency operator-initiated system adjustments are implemented, all transmission facilities loadings are within emergency ratings and all voltages are within emergency limits."

**4.1.9 Flowgate**

A selected transmission element or group of elements acting as proxy for the transmission network representing potential thermal, voltage, stability and contractual system constraints to power transfer. The process of determining the reliability issues for which a Flowgate is representative of and by which a Flowgate is established is outlined in the Flowgate Determination section.

**4.1.10 Line Outage Distribution Factor (LODF)**

The percent of the power flowing across the contingency facility that transfers over the monitored facility when the contingency facility is switched out of service.

**4.1.11 Local Area Problem**

A Transmission Owner may declare a facility under its control a Local Area Problem if it is overloaded in either the base case or contingency case prior to the transfer. If a member declares a facility a Local Area Problem, the member may neither deny transmission service nor request

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NERC Transmission Loading Relief for that defined condition.

### **4.1.12 Monitored Facilities**

Any transmission facility that is checked for predefined transmission limitations.

### **4.1.13 Non-firm Available Transfer Capability (NFATC)**

The determined transfer capability available for sale for non-firm Transmission Service as defined by the [NERC-FERC](#) pro forma Open Access Transmission Tariff for any direction of interest on a transmission network between generation groups and/or system load for which commercial service may be desired.

### **4.1.14 Normal Voltage Limits**

The operating voltage range on the interconnected system that is acceptable on a sustained basis.

### **4.1.15 Open Access Transmission Tariff (OATT)**

FERC approved Pro-Forma Open Access Transmission Tariff.

### **4.1.16 Operating Horizon**

Time frame for which Hourly transmission service is offered. The rolling time frame is twelve to 36 hours with a 12 noon threshold. It includes the current day, and after 12 noon, the remainder of the current day and all hours of the following day.

**Question: Is this defined in the tariff? Should reference the tariff and eliminate specificity? In looking at the tariff's definition, this definition does not match the tariff. Which one is used?**

### **4.1.17 Operating Procedure**

Any policy, practice or system adjustment that may be automatically implemented, or manually implemented by the system operator within a specified time frame, to maintain the operational integrity of the interconnected electric systems. If an Operating Procedure is submitted to the SPP in writing and states that it is an unconditional action to implement the procedure without regard to economic impacts or existing transfers, then the Operating Procedure will be used to allow transfers to a higher level.

### **4.1.18 Outage Transfer Distribution Factor (OTDF)**

The percentage of a power transfer that flows through the monitored facility for a particular transfer

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when the contingency facility is switched out of service.

### **4.1.19 Participation Factor**

The percentage of the total power adjustment that a participation point will contribute when simulating a transfer.

### **4.1.20 Participation Points**

Specified generators that will have their power output adjusted to simulate a transfer.

### **4.1.21 Planning Horizon**

Time frame beyond which Hourly transmission service is offered.

[Question: Is this correct? Is this the period after which hourly service is not offered?](#)

### **4.1.22 Power Transfer Distribution Factor (PTDF)**

The percentage of power transfer flowing through a facility or a set of facilities for a particular transfer when there are no contingencies.

### **4.1.23 Power Transfer Voltage Response Factor (PTVF)**

The per unit amount that a facility's voltage changes due to a particular transfer level.

### **4.1.24 SPP Open Access Transmission Tariff (SPP OATT)**

The Southwest Power Pool Regional FERC approved Open Access Transmission Tariff

### **4.1.25 Transfer Distribution Factor (TDF)**

A general term, which may refer to either PTDF or OTDF – The TDF represents the relationship between the participation adjustment of two areas and the Flowgates within the system.

### **4.1.26 Transfer Test Level**

The amount of power that will be transferred to determine facility TDFs for use in DC linear analysis.

### **4.1.27 Transmission Owner (TO)**

An entity that owns transmission facilities which are operated under a FERC approved OATT.

**4.1.28 Transmission Provider (TP)**

An entity responsible for administering a transmission tariff. In the case of the SPP OATT, SPP is the Transmission Provider. An SPP member may be its own Transmission Provider if the member continues to sell transmission service under the terms of its own tariff.

**4.1.29 Transmission User (TU)**

Any entities that are parties to transactions under appropriate tariffs.

**4.1.30 Transmission Reliability Margin (TRM)**

The amount of Flowgate capacity necessary to ensure that the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions.

**4.1.31 TRM multipliers (a & b)**

“a”-multiplier; a factor between 0 and 1 indicating the amount of TRM not available for non-firm use during the Planning Horizon

“b”-multiplier; a factor between 0 and 1 indicating the amount of TRM not available for non-firm use during the Operating Horizon

### 4.2 CONCEPTS

#### 4.2.1 Transfer Capability

Transfer capability is the measure of the ability of the interconnected electric systems to reliably move or transfer power from one area to another over all transmission circuits (or paths) between those areas under specified system conditions. The units of transfer capability are in terms of electric power, generally expressed in megawatts (MW). Transfer capability is also directional in nature. That is, the transfer capability from area A to area B is not generally equal to the transfer capability from area B to area A.

Some major points concerning transfer capability analysis are briefly outlined below:

1. **System Conditions** - Base system conditions are identified and modeled for the period being analyzed, including projected customer demand, generation dispatch, system configuration and base reserved and scheduled transfers.
2. **Critical Contingencies** - During transfer capability studies, both generation and transmission system contingencies are evaluated to determine which facility outages are most restrictive to the transfer being analyzed.
3. **System Limits** - The transfer capability of the transmission network can be limited by thermal, voltage, stability or contractual considerations.

Thermal and voltage transfer limits can be determined by calculating the First Contingency Incremental Transfer Capability. Stability studies may be performed by the Transmission Owners at their discretion. Any known stability limits, which are determined on a simultaneous basis, and all contractual limits will be supplied by each Transmission Owner in writing to the Transmission Provider and the [TAWGTWG](#).

#### 4.2.2 Available Transfer Capability

*NERC Available Transfer Capability Definitions and Determinations*, reference document (June 1996) states: "Available Transfer Capability (ATC) is a measure of the transfer capability remaining in the physical transmission network for further commercial activity over and above already committed uses."

SPP determines ATC as a function of the most limiting Flowgate of the path of interest. How limiting a Flowgate is to a path is based on two aspects: (1) The determined firm or non-firm Available

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Flowgate Capacity (FAFC or NFAFC) for that Flowgate, and (2) the TDF for which that Flowgate responds to power movement on the path under evaluation.

The common relationship between the identified limiting Flowgate and the path is the Transfer Distribution Factor (TDF). This is mathematically expressed as follows:

**Firm ATC** = the firm Available Flowgate Capacity divided by the Transmission Distribution Factor  
(FATC = FAFC/TDF)  
of the associated path.

Likewise,

**Non-Firm ATC** = the non firm Available Flowgate Capacity divided by the Transmission Distribution Factor  
(NFATC = NFAFC/TDF)  
of the associated path.

Path ATC is determined by identifying the most limiting Flowgates to the path in question. Each Flowgate represents a potential limiting element to any path within a system. Therefore, each Flowgate with known Transfer Distribution Factor (TDF) can be translated into path ATC. However, the Flowgate that produces the most limiting path ATC is the key Flowgate for that path.

The calculation of path ATC using this method is based on the ratio of the TDF into the remaining capacity of a Flowgate, (non firm Available Flowgate Capacity or firm Available Flowgate Capacity). Once a group of potential limiting elements has been selected, then all values pertaining to ATC can be translated based on the TDF.

### **4.2.3 Response Factors**

Response Factors are numerical relationships between key adjustments in the transmission system and specific transmission components being monitored. They provide a linear means of extrapolation to an anticipated end for which decisions can be made. While there are obviously uncountable numbers of responses occurring in a system while transferring power, there are only a

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few that aid in the process of determination of ATC.

- (1) Transfer Distribution Factor** - The Transfer Distribution Factor (TDF) is a general term referring to either PTDF or OTDF. The relationship between adjustments in participation points associated with a specific path and the identified Flowgate in the system is the TDF. Depending on the Flowgate type, the TDF may specifically represent the response in the system to certain types of pre-identified system limitations as mentioned in the System Limitations section of the criteria.
- (2) Line Outage Distribution Factor** - The Line Outage Distribution Factor (LODF) is the percent of the power flowing across the contingency facility that transfers over the monitored facility when the contingency facility is switched out of service.
- (3) Power Transfer Distribution Factor** - The Power Transfer Distribution Factor (PTDF) is the percentage of a power transfer that flows through a facility or a set of facilities for a particular transfer when there are no contingencies. PTDF type Flowgates are used for representing Thermal, Voltage, Stability and Contractual Limitations. A PTDF Flowgate must have a PTDF at or above the percentage outlined in NERC Operating Policies Transmission Loading Relief curtailment thresholds to be considered a valid limit to transfer, except in long-term evaluations where no TDF threshold is used.
- (4) Outage Transfer Distribution Factor** - The Outage Transfer Distribution Factor (OTDF) is the percentage of a power transfer that flows through the monitored facility for a particular transfer when the contingency facility is switched out of service. OTDF type Flowgates typically represent contingency based thermal limitations within the system. They can also be used to represent Stability limitations. Monitored Facility must have an OTDF at or above the percentage outlined in NERC Operating Policies Transmission Loading Relief curtailment thresholds to be considered a valid limit to transfer, except in long-term evaluations where no TDF threshold is used.
- (5) Power Transfer Voltage Factor** - The Power Transfer Voltage Factor (PTVF) is the per unit amount that a facility's voltage changes due to a particular transfer level. A facility must have a PTVF at or above 0.02 p.u. to be considered a valid

limit to transfer.

### 4.2.4 Transfer Capability Limitations

The electrical ability of the interconnected transmission network to reliably transfer electric power may be limited by any one or more of the following:

1. **Thermal Limits** - Thermal limits establish the maximum amount of electrical current that a transmission circuit or electrical facility can conduct over a specified time period before it sustains permanent damage by overheating or before it violates public safety requirements. Normal and emergency transmission circuit ratings are defined in the SPP Rating of Equipment.
2. **Voltage Limits** - System voltages must be maintained within the range of acceptable minimum and maximum voltage limits. For example, minimum voltage limits can establish the maximum amount of electric power that can be transferred without causing damage to the electric system or customer facilities. A widespread collapse of system voltage can result in a blackout of portions of or the entire interconnected network. Acceptable minimum and maximum voltages are network and system dependent. The Normal Voltage Limit range is the operating voltage range on the interconnected systems, above or below nominal voltage and generally expressed in kilovolts, that is acceptable on a sustained basis. The Emergency Voltage Limit range is the operating voltage range on the interconnected systems, above or below nominal voltage and generally expressed in kilovolts, that is acceptable for the time sufficient for system adjustments to be made following a facility outage or system disturbance. Voltage limits will be as specified in the Planning Criteria section of the SPP Criteria: Regional Transmission Planning.
3. **Stability Limits** - The transmission network must be capable of surviving disturbances through the transient and dynamic time periods following a disturbance. Specific Stability Limits Criteria is found in the SPP Criteria: Regional Transmission Coordinated Planning.
4. **Contractual Requirements**- Some Transmission Owners have contractual arrangements that contain mutual agreements regarding the power transfer

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available between them. These contractual arrangements have been approved by the appropriate regulatory agencies. The NERC Operating Policies inherently recognize contract requirements that may limit the power transfer between Transmission Owners. Some contract requirements are discussed in NERC Operating Policy 3 – Interchange.

The limiting conditions on some portions of the transmission network can shift among thermal, voltage, stability and contractual limits as the network operating conditions change over time

### **4.2.5 Invalid Limits**

The procedures outlined in criteria may lead to identification of certain limiting facilities that are invalid. Reasons may include, but are not limited to:

- An invalid contingency generated as a generic single outage, which is not valid without the outage of other facilities.
- Incorrect ratings. Ratings will be corrected and the limiting transfer level recalculated.
- The rating used may be directional in nature (directional relaying) and may not be valid for the direction of flow.
- The limiting facility is the result of over-generation/under-generation at a participation point.
- The contingency is considered improper implementation of an operating procedure.
- The facility represents an equivalent circuit.
- The limiting facility is declared a Local Area Problem.

Any limiting facility determined to be invalid due to modeling error that could be corrected must be corrected by the next series of seasonal calculations.

### **4.2.6 Flowgates**

Flowgates are selected power transmission element groups that act as proxies for the power transmission system capable of representing potential thermal, voltage, stability and contractual system limits to power transfer. There are two types of Flowgates;

- ? OTDF Flowgate; Composed of usually two power transmission elements in which the loss of one (contingency facility) can cause the other power transmission element (monitored facility) to reach its emergency rating.
- ? PTDF Flowgate; Composed of one or more power transmission elements in which the total pre-contingency flow over the flowgate cannot exceed a predetermined limit.

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Either with the power transmission system intact or with a contingency elsewhere, the Flowgate can be selected to represent a thermal, voltage, stability or contractual limit.

Once a set of limiting elements have been identified, as potential transfer constraints, they can be grouped with their related components and identified as unique Flowgates. The rating of the Flowgate is called the Total Flowgate Capacity (TFC) of the Flowgate and is monitored and used for evaluation of all viable transfers for commerce.

To the extent that the impedance network models are similar with similar participation patterns, the same Flowgates can be monitored in other network models for purposes of evaluating the impact of additional transactions on the network. Of course, each network model will be subtly different therefore it is important that engineering judgment is exercised regarding the validity of applying existing Flowgates to a new network model.

### **4.2.7 Total Flowgate Capacity (TFC)**

The Flowgate and its Total Flowgate Capacity are pre-defined. A Flowgate is intended to limit the amount of power allowed to flow over a defined element set. This TFC may reflect several possible types of system limitations as described in the Limitations Section.

For OTDF Flowgates representing thermal overloads, the TFC represents the total amount of power that can flow during the contingency without violating the emergency rating of the monitored facility.

For PTDF Flowgates, the TFC represents the total amount of power that can flow over a defined element set under pre-contingency conditions.

Again, limit types could be:

- 1) Thermal limits under normal operating conditions or linked contingency events,
- 2) Voltage limits under normal operating conditions or linked contingency events,
- 3) Stability limits under normal operating conditions or linked contingency events, or
- 4) Contractual limits.

Flowgates are selected based on the impacts of power transfer in an electrical network and will be evaluated on a regular basis and revised as needed to ensure thorough representation of the system they are representing.

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Each Flowgate represents a possible limitation within a network and in itself has a Flowgate rating (TFC) and an Available Flowgate Capacity (AFC) which can be translated via the path response factor (TDF) to a path Available Transfer Capability (path ATC) for any path.

### **4.2.8 Flowgate Capacity**

#### **4.2.8.1 Total Flowgate Capacity (TFC)**

A Flowgate acts as proxy to path transfer limitations. This allows additional transfer capability on a path based on the additional loading that can be incurred. The determination of additional loading that can be incurred on a Flowgate begins first with the determination of the maximum loading that can be allowed on a PTDF Flowgate or on the monitored facility of an OTDF Flowgate during its associated contingency. This maximum loading is termed Total Flowgate Capacity (TFC).

#### **4.2.8.2 Available Flowgate Capacity (AFC)**

The available capacity on a Flowgate for additional loading for new power transfers is determined by taking the Total Flowgate Capacity (TFC) and removing the Flowgate Base Loading (FBL) and the Impacts due to existing system commitments and any transmission margins.

$$\text{AFC} = \text{TFC} - \text{FBL} - \text{Impacts of existing commitments} - \text{transmission margins}$$

#### **4.2.8.3 Firm and Non-Firm Available Flowgate Capacity (FAFC and NFAFC)**

Path ATC is classified as firm or non-firm. This distinction is made when determining the Available Flowgate Capacity (AFC) remaining for path ATC. AFC is classified as firm or non-firm depending on the types of existing commitments considered for Impacts. This is realized in the formula for Available Flowgate Capacity:

$$(\text{AFC} = \text{TFC} - \text{FBL} - \text{Impacts of existing commitments} - \text{transmission margins}).$$

### **4.2.9 System Impacts**

#### **4.2.9.1 Impacts of Existing Commitments**

In order to simultaneously account for impacts of all commitments to all paths at any given instant in time, it is necessary to devise a system that allows for fluctuation in the number of and the magnitude of system commitments on each path within an acceptable amount of time, for the purpose of providing transmission service in a competitive manner.

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Existing transmission commitments beyond those modeled as native load and related generation commitments can be found on the OASIS. However, before impacts of OASIS posted reservations can be calculated, they must first be interpreted – carefully examined for peculiar individual characteristics. Due to the nature of the OASIS and the rules therein, posted reservations sometimes require interpretation as to their actual value to apply toward the transmission network.

The following are examples of evaluations that are performed:

- ?? Recognize and adjust for duplicate reservations by multiple providers to complete one transaction.
- ?? Adjust for reservations that may have changed status or have been replaced by another reservation, including renewals and redirects.
- ?? Check for proper reflection of capacity profiles of reservations.
- ?? Distinguish status and class of reservations such as Study, Accepted, Confirmed, Firm, and Non-Firm status to determine their proper impact level.

### **4.2.9.2 Positive Impacts**

The scope of “Impacts of existing commitments” in the formula for AFC incorporates both the calculated positive impacts and counter impacts of non-firm and firm service commitments. A positive impact is determined as having the effect of increasing the loading on a Flowgate in the direction of the Flowgate. Positive impact types are sorted into those resulting from firm and non-firm service commitments. To determine firm or non-firm Available Flowgate Capacity, the appropriate impacts are applied to make up the “Impacts of existing commitments” in the above formula. Additionally, counter impacts are considered depending on firm or non-firm determinations.

### **4.2.9.3 Counter Impacts**

Counter impacts are those impacts due to transfers that act to relieve loading on limiting elements. Counter impact types are sorted into those resulting from firm and non-firm service commitments. These flows are not traditionally accepted as valid under the pretense that any reservation that may cause such a loading relief is not actually doing so until it has been scheduled. To consider counter-flows in transfer capability studies is to assume a high probability of scheduling.

### **4.2.10 Monitored Facilities**

During the Flowgate determination process those facilities monitored for pre-defined limiting

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conditions. Mandatory Monitored Facilities, for use in these calculations, are all facilities operated at 100 kV and above and all interconnections between Transmission Providers. Other facilities operated at lower voltage levels may be added to the Monitored Facilities list at the discretion of the Transmission Providers or Transmission Owners.

In defining Flowgates, the Monitored Facilities are those components of a Flowgate that remain in service following the defined contingency.

### **4.2.11 Critical Contingencies**

Those facilities that, when outaged, are deemed to have an adverse impact on the reliability of the transmission network. These facilities may be transmission facilities, including multi-terminal lines, or generating units. All interconnections of an area will be considered Critical Contingencies, regardless of voltage level as will the largest generating unit in the area.

## **4.3 RELIABILITY MARGINS**

Transmission margins are very important to the reliability of the interconnected network in an Open Access environment. The NERC "Available Transfer Capability Definitions and Determination Reference Document" defines Transmission Reliability and Capacity Benefit margins (TRM, CBM).

When using Flowgates as a means to represent a system's constraints, it is necessary to translate reliability margins, TRM and CBM, to a unique TRM and CBM for each Flowgate. Margins are the required capacities that must be preserved for the purpose of moving power between areas during specific emergency conditions. Since a margin is a preservation of transfer capacity, the margin itself will have an impact on the most limiting element between the two areas for which it is reserved.

All studies for the purpose of assessing TRM and CBM will only include generation units located within the transmission system for which the Transmission Provider is responsible. These generation units may also include those not specifically designated to serve network load connected to transmission systems within the Transmission Provider system. However, the method by which a Transmission Provider is to determine TRM and CBM shall not vary from that described herein with the exception of assessing facilities located outside of SPP regional structure/bounds.

### **4.3.1 Transmission Reliability Margin (TRM)**

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TRM on a Flowgate basis is that amount of reserved Flowgate capacity necessary to ensure that the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions. The following factors shall be considered by SPP in the determination of TRM.

### ?? Load Forecast

Transmission Providers will forecast hourly load for the next seven days for all applicable control areas.

Beyond seven days, Transmission Providers will project a demand based on seasonal peak load models for all applicable Transmission Owners. These load levels will be the projected peaks for the time frame for which the forecast applies.

### ?? Variations in Generation Dispatch

Variations to generation patterns constitute a viable concern. Generation dispatch in near-term models will be based on real-time snapshots of network system conditions. For the longer-term horizons, whenever possible, generation dispatch information provided by generation owners will be applied to the ATC calculations. However, it is recognized that longer-term dispatch is probably unknown to the generation controlling entities themselves except for base-load and must run type units.

### ?? Unaccounted Parallel Flows

Parallel flows can be an issue if pertinent data to the ATC calculations are not shared among the transmission providers and those transactions that have multiple wheeling parties are not identified. Provision in the SPP OATT have reduced the impacts of these transactions within SPP and between SPP and other regions.

Transmission Owners of facilities that are impacted by unaccounted parallel flows or variations in dispatch may request additional TRM for their impacted Flowgates from the [TAWGTWG](#). Such requests must be in writing, must document the parallel flow impacts or the variance in historical dispatch, and be accompanied by analysis or documentation supporting the additional TRM requirements. The [TAWGTWG](#) shall have the authority to grant or reject requests for the additional TRM requests.

### ?? SPP Operating Reserve Sharing

The SPP Operating Reserve Sharing program was instituted to provide both reliability and economic benefits to its members. This program reduces the amount of internal operating

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reserves each entity is required to maintain while providing an automated way of allocating resources on a region wide level to ensure quick recovery for the loss of any unit.

Transmission facilities must be able to support the automatic implementation of the Reserve Sharing program. To that end, TRM on the Flowgates will provide enough capacity to withstand the impact of the most critical generation loss to that facility. All generation contingencies will be simulated by the Operating Reserve Sharing algorithm to determine the highest impact on each Flowgate. This capacity will be included in TRM.

### ?? Counter Flow Impacts

Another factor to consider in the SPP TRM process is that for the planning horizon, which is primarily next day and beyond, the counter flow impacts of reservations on the Flowgates are removed with the exception of Designated Network Resources. This provides an inherent margin in the calculation which along with the constant TRM provided by the reserve sharing allocation, is a proxy for the generation variation.

### 4.3.2 TRM Coordination

The TRM specified on a Flowgate represents a transmission margin that the transmission system needs to maintain a secure network under a reasonable range of uncertainties in system conditions. As such it is not necessarily an import or export quantity specifically. The Automatic Operating Reserve Sharing portion is determined by centralized Regional study based on the SPP Operating Reserve Sharing Criteria. Any additional TRM may be requested by the Flowgate owner/s, subject to review by the SPP [TAWGTWG](#).

### 4.3.3 TRM Availability for Non-firm Service

To maximize transmission use to the extent reliably possible, Transmission Providers may sell TRM on a non-firm basis. The 'a' and 'b' multipliers facilitate this purpose in the calculations. However, a contingency or long-term outage to a high impact unit may result in the curtailment of non-firm schedules and displacement of non-firm reservations sold within the TRM.

### 4.3.4 TRM Calculation Frequency

The Operating Reserve Sharing portion of the TRM will be determined annually for each season (Spring, Summer, Fall, Winter). This process is outlined in the SPP Criteria under Operating Reserves and the Operating Reserve Share Program Procedures. Flowgate owner requests for additional TRM may be submitted at any time for consideration at the next [TAWGTWG](#) meeting.

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The submittal should include justification and rationale in writing for the requested additional TRM. The [TAWGTWG](#) shall have authority to reject or grant such requests.

### **4.3.5 Capacity Benefit Margin (CBM)**

CBM on a Flowgate basis is the amount of Flowgate capacity reserved by load serving entities to ensure access to generation from interconnected systems to meet generation reliability requirements.

SPP will use a probabilistic approach for Regional and sub-regional Generation Reliability assessments. These assessments will be performed by the SPP on a biennial basis. Generation Reliability assessments examine the regional ability to maintain a Loss of Load Expectation (LOLE) standard of 1 day in ten years. The SPP capacity margin Criteria requires each control area to maintain a minimum of 12% capacity margin for steam-based utilities and 9% for hydro-based utilities. Historical studies indicate that the LOLE of one day in ten years can be maintained with a 10% - 11% capacity margin. As a normal practice, default values for CBM will be zero for calculations of ATC for some or all of the following reasons:

- ? the existing level of internal capacity margin of each member is adequate
- ? historical reliability indicators of transmission strength of the SPP area
- ? Open Access transmission usage environment allows greater purchasing options

Flowgate owner requests for additional CBM may be submitted at any time for consideration at the next [TAWGTWG](#) meeting. The submittal should include written justification and rationale for the requested additional CBM. The [TAWGTWG](#) shall have authority to reject or grant such requests.

## **4.4 FLOWGATE AND TFC DETERMINATION**

The Flowgates used by SPP to administer the Regional Tariff serve as a proxy of the transmission system. It is therefore essential to the reliable operation of the transmission system for the set of Flowgates to adequately represent the transmission system.

### **4.4.1 Flowgate Updates**

Updating the list of Flowgates is a continual process. Flowgate additions and deletions and changes in TFC are the result of studies, analyses, and operating experience of SPP and its member Transmission Owners. At any time during the year, the owner of transmission facilities

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may require that a set of facilities be used as a Flowgate to protect equipment or maintain system reliability, regardless of the ownership of that set of facilities. SPP will update the Flowgate list as needed. The responsibility for reviewing and monitoring the list will be shared between the individual Transmission Owners, the [TAWGTWG](#), the Security Working Group (SWG) and the SPP staff. Updating the Flowgate list may or may not require running a study. If the Transmission Owner is to perform a study, they are responsible for gathering accurate information from neighboring Transmission Owners. The following requirements apply when adding a Flowgate to the list:

- ? Transmission Owners may add OTDF Flowgates, provided that the contingency is valid, the TFC represents the total amount of power that can flow during the contingency without violating the emergency rating of the monitored facility, and no operating procedures apply to that Flowgate.
- ? Transmission Owners may add PTDF Flowgates, provided that it is a single facility Flowgate, the TFC is equal to the normal rating of the single facility, and no operating procedures apply to that Flowgate.
- ? All other Flowgates proposed by Transmission Owners must have [TAWGTWG](#) and SWG approval. The Security Coordinator can provide interim approval until the [TAWGTWG](#) and SWG can convene to assess the request. Examples of such Flowgates are PTDF Flowgates with two or more elements, OTDF Flowgates with three or more elements, or Flowgates involving operating procedures.

There may be times when significant topological changes occur during operations that create unexpected loadings on facilities not explicitly modeled as Flowgates. During these conditions, the Security Coordinator will work with the Transmission Owner(s) to develop a commercial Flowgate representative of the conditions present. Any such additions will be analyzed at the next Flowgate evaluation to determine if they should remain in the permanent list of Flowgates.

### **4.4.2 Annual Review**

In addition to the continual studies and analyses, the Flowgate list will also be reviewed annually by the [TAWGTWG](#) using seasonal power flow models. This annual assessment will be performed following the January SPP Model Development Work Group (MDWG) release of each year's load flow cases. This review is intended to serve as a tool by which the [TAWGTWG](#), the Transmission

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Owners, and the SPP may assess the adequacy of the existing list of Flowgates and thereby recommend necessary additions, deletions, and TFC changes. In order to accomplish this assessment, the process herein described will be used to identify the most limiting elements for a variety of transfer directions. Although transfer values will be involved in this process, this process is not intended to produce any viable ATC values for use commercially or otherwise. Rather, ATC values are determined as described in the "ATC Calculation Procedures" section.

### **4.4.2.1 Power Flow Models**

The power flow models to be used in the process will be based on the models developed annually by the SPP MDWG. Application of the models will use the following season definitions. The Summer Model will apply to June through September, the Fall Model will apply to October and November, the Winter Model will apply to December through March and the Spring Model will apply to April and May. Each of these seasonal models developed will represent peak models. In addition, for the summer season only, a Summer Shoulder Case representing approximately an 85% load level will be used in the determination process.

Prior to the start of the review all SPP Transmission Owners will submit a list of changes to SPP to adjust the models. These changes should be such that the power flow models used to review the Flowgate list represent the seasonal loads, transmission system configuration, generation dispatch, and transactions that each Transmission Owner expects will occur during actual seasonal operations. The changes will be submitted to SPP in a common format as outlined in the SPP Load Flow Procedure Manual.

Model changes and parameters for Transmission Owners outside of SPP will be coordinated through the NERC regional councils.

### **4.4.2.2 Parameters supplied by the Transmission Owners**

In order to simulate a transfer, certain parameters must be known. These include the participation points of MW increase/decrease and the participation factor of these points. These items will be supplied to SPP by the Transmission Owners.

Participation points for exports will primarily be points of generation within the sending area. Generators that are off-line may be turned on to participate in a transfer. A Transmission Owner can specify generators to be excluded from use as participation points, such as generators that serve base load. The participation points used for export will be consistent for all transfer

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directions.

The participation points for imports will primarily be points of generation reduction within the receiving area. A Transmission Owner can specify generators to be excluded from use as participation points, such as generators that serve base load. The generation reduction should be based on economics, operating constraints or other criteria as specified by the Transmission Owner. The participation points used for import will be consistent for all transfer directions.

Other parameters that must be supplied by the Transmission Owners include the following:

- ?? A contingency list including all critical single contingencies (both transmission and generation) as well as multi-terminal facilities.
- ?? All contingencies suspected of causing voltage limitations and the transfers for which they should be studied.
- ?? Any additional facilities below 100 kV to be monitored.
- ?? High and low voltage limits for system and/or individual buses.
- ?? All Contractual Requirements.

### 4.4.2.3 Default Parameters

The following parameters will be used in the event that a Transmission Owner does not submit the area specific parameters:

- ?? For exports, the participation points will include all on-line generating facilities in the model with unused generating capacity available.
- ?? The export participation factors will be the amount of unused generating capacity at each point divided by the sum of the unused generating capacity at all export participation points (i.e., P<sub>MAX</sub>-P<sub>GEN</sub>).
- ?? For imports, all on-line generators will be decreased prorated by their machine bases capable generation (i.e., P<sub>GEN</sub>-P<sub>MIN</sub>).
- ?? Transfer directions will be a set of all commercial paths.
- ?? Exports from merchant power plants will be considered in the determination of Flowgates.
- ?? The transfer test levels are specified at the time of the ATC calculations, and are determined by SPP staff.

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- ?? All facilities 100 kV and above will be included in the contingency list and the monitored facility list. In addition, the largest unit within the area will be included in the contingency list.
- ?? Voltage limits will be as specified in Planning Criteria section of the SPP Criteria: Regional Transmission Planning.

### **4.4.2.4 Voltage Limits**

Voltage limits are network and system dependent. Each Transmission Owner will submit an acceptable set of Normal Voltage Limits and Emergency Voltage Limits to be applied for the purpose of Flowgate and TFC determination.

### **4.4.2.5 Linear Analysis and AC Verification**

SPP will perform DC linear analysis studies estimating the import or export ability of the identified commercial paths using a combined linear evaluation of the network models with a follow up AC verification of a minimum of the first three valid operational limitations. Specific AC analysis will also be performed on any specified contingency/transfer combinations noted as voltage limiting contingencies. Monitored Facilities, Contingency Facilities and Participation Points will be implemented as described in the “Parameters Supplied by the Transmission Owners” section or “Default Parameters” section as applicable.

### **4.4.2.6 Operating Procedures**

Operating Procedures are available and may increase the Total Flowgate Capacity of a Flowgate when implemented. Implementation of any available Operating Procedures will be done using a full AC solution to determine the correct limit to be placed on a Flowgate. Any operationally increased Total Flowgate Capacities established will be so noted.

### **4.4.2.7 Identification of Flowgate Changes**

[TAWGTWG](#) will review the FCITC results of the power flow models and selected paths and identify whether any Flowgates should be added, removed, or changed to better represent the SPP transmission system.

A minimum of the first three valid FCITC limitations to each path will be AC verified. When all paths have been evaluated, the [TAWGTWG](#) will review the AC verification results and, where needed, the linear results for consideration as potential Flowgates.

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Typically, new Flowgates should be either OTDF Flowgates with a TFC representing the total amount of power that can flow during a contingency without violating the emergency rating of the monitored facility or single facility PTDF Flowgates with a TFC equal to the normal rating of the single facility. In situations involving operating procedures the TFC may be higher than the facility ratings.

The [TAWGTWG](#) will then determine any needed changes to the existing list of Flowgates. The number of times elements appear as one of the most limiting components for transfers, the rank in the list of most limiting elements, and the TDF level will be the primary factors considered in making the determination. Flowgates can also be developed to represent identified Voltage Limitations and Contractual Requirements.

### **4.4.2.8 Review and Coordination with Transmission Owners**

Each SPP Transmission Owner will have the option of naming a representative to review the results of the Flowgate review or deferring to the [TAWGTWG](#) finalization of the results. Summary sheets of all interfaces or paths calculated will be communicated to the representatives for review. All data will be made available for review upon request. The results will be approved by the [TAWGTWG](#) before being reported.

The Transmission Owner should review the [TAWGTWG](#) proposed Flowgate changes and consider their own operating experience and study results. Any modifications to the [TAWGTWG](#) proposed changes should be returned to the [TAWGTWG](#). Further dialog and justification may be required of a Transmission Owner if the [TAWGTWG](#) has concerns about their modifications.

[TAWGTWG](#) will draft a final Flowgate list, incorporating the comments of the Transmission Owners.

The Transmission Owners should approve any additions, deletions, or changes to the Flowgate list.

### **4.4.2.9 Initiating Interim Review Of Flowgate List**

Operational condition changes, especially status changes of EHV transmission facilities and large generators, may warrant a partial or full evaluation of the list of Flowgates. A review may also be necessary due to multiple schedules being implemented causing parallel flows.

Transmission Owners will have access to copies of the SPP models and all relevant data used for the annual review. Transmission Owners may at any time request a re-run of the Flowgate

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evaluations. The Transmission Owner requesting the re-run shall provide their reasons for requesting the re-run to the [TAWGTWG](#) for consideration. Should the [TAWGTWG](#) deem a re-run necessary, the SPP staff will perform the additional evaluation.

### **4.4.3 Dispute Resolution**

If there is a dispute concerning a Flowgate, the questioning party must contact SPP and the Transmission Owner(s) involved to resolve the dispute.

Examples of reasons for disputing a Flowgate may include:

- ?? The contingency used for the Flowgate is not valid.
- ?? There is an operating procedure that corrects the violation that is not being properly taken into account.
- ?? An operating procedure is being taken into account in an improper manner yielding an incorrect TFC.

If the parties involved do not reach agreement on the selected Flowgates, the SPP [TAWGTWG](#) will review all of the arguments. Additional analyses will be performed if necessary. SPP [TAWGTWG](#) will then make a final determination. If a party still wishes to dispute the Flowgate, the SPP Dispute Resolution policy described in Section 2 of the SPP By-laws may be initiated.

### **4.4.4 Coordination with Non-SPP Members**

Flowgates involving transfers on interfaces and paths between SPP Transmission Owners and non-SPP Transmission Owners will be coordinated by the parties involved and the [TAWGTWG](#).

### **4.4.5 Feedback to SPP Members**

The SPP staff shall maintain a table of all Flowgates on the SPP OASIS. The table shall include all Flowgate data, which are applicable, including the Flowgate name, monitored facility, contingency facility, Flowgate rating, TRM, CBM, a and b multipliers, LODF, the TDF basis for the Flowgate (OTDF or PTDF), and the TDF cutoff threshold. This table shall be updated with any new information on or before the first of each month.

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### **4.5 ATC CALCULATION PROCEDURES**

The determination of ATC via Flowgates utilizes proxy elements to represent the power transmission network. This process depends on the selected Flowgates to act as pre-determined limiting constraints to power transfer. The process by which ATC will be determined when using the Flowgate proxy technique incorporates the Definitions and Concepts within this Criteria.

Determination of ATC via Flowgates adheres to the following approach:

- ?? establishes a network representation (power flow model)
- ?? identifies potential limits to transfer (thermal, voltage, stability, contract)
- ?? determines response factors of identified limits relative to transfer directions (TDF)
- ?? determines impacts of existing commitments (firm, non-firm)
- ?? applies margins (TRM, CBM, a & b multipliers)
- ?? determines maximum transfer capabilities allowed by limits and applied margins ( ATC, FATC, NFATC)

#### **4.5.1 ATC Calculation and Posting Timeframes**

To assist Transmission Providers with Short Term service obligations under FERC Order 888 and 889, SPP will calculate the monthly path ATC for the upcoming 16-months for all potential commercial paths for Transmission Providers in the SPP Region. This data will be posted for use in evaluating the SPP OATT requests and provided on a monthly basis to the Transmission Providers in adequate time to post the information on OASIS nodes by the 1<sup>st</sup> of each month.

Hourly, Daily and Weekly ATC shall be calculated on a daily basis and posted at the time of run. SPP will also provide commercial path conversions to any individual providers needing that information to administer their own tariff. Hourly ATC shall be calculated for 12 to 36 hours ahead depending on time of day. SPP has a firm scheduling deadline at 12:00 noon of the day prior to start. At this point all firm schedules are known and the hourly non-firm request window opens for the next day. At this point SPP will calculate hourly ATC for HE 14 of the current day through HE 24 of the next day. This process continues dropping the current hour each resynchronization until 12:00 noon the next day when the cycle starts again. Again SPP will provide commercial path conversions for any SPP provider that needs them for posting on their own OASIS nodes.

#### **4.5.2 Power Flow Models**

The monthly calculation of Flowgate based ATC will be made using rolling seasonal models that produce an update for the upcoming sixteen month service window (12 month multi-month service + 4 months advance notice). For example, the required data update for January of any year will

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yield data for January thru December plus the next January, February, March and April of the following year. The necessary seasonal models will be selected from the approved SPP MDWG set to represent this time frame. Any known system changes/corrections to these models will be included. SPP will routinely calculate ATC for the upcoming 16-month service window. Monthly models will be updated/developed from the latest seasonal models to represent individual months for the purpose of capturing operational conditions that may be unique from other monthly models.

### **4.5.3 Base Loading , Firm and Non-Firm (FBL & NFBL)**

Model base flows provide the basis for which to begin determination of Available Flowgate Capacity. However, there are many transactions within the monthly models that are duplicated on the OASIS. A record of the network model flows of each Flowgate as found in the solved network models will be used as a beginning point to account for impacts of base case transactions and existing commitments. The impacts on Flowgates due to transactions outside the purpose of representing designated Network Resource exchange will be removed by applying the TDF factors determined to each transaction identified in the base case. In addition to adjusting the model flow in this manner, positive and counter impacts of existing OASIS commitments will be applied according to the type of Base Loading (Firm or Non-Firm) under consideration. In non-firm Base Loading, 50% of Counter Impacts resulting from firm Confirmed reservations will act to reduce the overall Base Loading figure. This process will establish the base loading expected with each control area serving its firm Network Load.

### **4.5.4 Transfer Distribution Factor Determinations (TDF)**

~~Participation data provided by Transmission Owners from the annual Flowgate evaluation process will be used as default data unless otherwise specified~~For export and import participation points all on-line generators, unless otherwise denoted (e.g., nuclear units), will be scaled prorated by their machine base (MBASE). TDF data will be calculated for all commercial paths using the most current participation data, ATC models and Flowgate list on a monthly basis.

### **4.5.5 Existing Commitments and Netting Practices**

Existing commitments resulting from Confirmed, Accepted and Study reservations on the SPP OATT OASIS nodes will be considered and accounted for in the determination of Available Flowgate Capacity. Accounting for the impact of existing commitments is a key part of the process for determining which new transfers will be allowed, unlike the TLR implementation process which involves determining which existing transfers must be curtailed. Therefore, unlike TLR

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implementation which requires a minimum TDF threshold, all positive impacts from existing commitments must be applied without using a minimum TDF threshold. Impacts from these commitments will be applied according to the future time frame of which they are applicable. These time frames are discussed below:

### **4.5.5.1 Yearly Calculations (whole years, starting 60 days out)**

A Yearly transmission service request is defined as a service request with a duration of greater than or equal to 1 year in length. The evaluation of Available Transfer Capability for this service type is performed utilizing solved network models with existing OASIS commitments figured in as net area interchange values. In addition to monitoring Flowgates, standard N-1 contingency analyses will be performed to study the impact of yearly transmission requests on the transmission system.

### **4.5.5.2 Monthly Calculations (months 2 through 16)**

The impacts of OASIS reservations that are Confirmed, Accepted and in Study mode will be applied to each Flowgate according to the TDF values determined. All positive impacts on a Flowgate due to these types of reservations decrease ATC. 100% of counter flow impacts due to reservations supplying Designated Network Resources are allowed to increase ATC. For non-firm service, up to 50% of the counter-flows due to all firm Confirmed reservations will be allowed on a Flowgate. The combined positive impacts and counter flow impacts will be added to the base flows to determine Available Flowgate Capacity for the Monthly calculation.

### **4.5.5.3 Daily and Weekly Calculations (Day 2 through 31)**

For Daily and Weekly calculations, composite area interchange values will be determined by integrating all OASIS Confirmed and Accepted reservations into projection models. Base flows will be determined by the projection models and counter flow impacts will be backed out by applying the necessary negative TDF calculations to all Accepted, Confirmed and Study reservations. For non-firm Available Flowgate Capacity calculations, up to 50% of the counter flow impacts due to all firm Confirmed reservations will be allowed. For firm Available Flowgate Capacity, the counter flow impacts of Confirmed reservations for Designated Network Resources are allowed to unload Flowgates.

### **4.5.5.4 Hourly Calculations (Day 1)**

These calculations are for hourly non-firm service only. All known schedule information from NERC Electronic-tags will be applied to base flow calculations. These schedules determine base interchange values. Since these are expected schedules, all counter flow impacts are allowed in

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this calculation. OASIS reservation information is not considered for determination of existing impacts in this calculation.

### **4.5.6 Partial Path Reservations**

Requests made on individual Transmission Provider's tariffs require two or more reservations to complete a transaction resulting in a partial path reservation. The SPP OATT offers service out of, into and across SPP and between SPP members with a single reservation. For transmission service under the SPP OATT, only reservations with valid sources and sinks are allowed. However, to avoid double accounting of Flowgate and system impacts due to duplicate reservations documented on Transmission Provider OATT OASIS nodes from partial path reservations, necessary means will be incorporated to recognize these related reservations and determine the correct singular impacts.

### **4.5.7 ATC Adjustments Between Calculations**

ATC will be adjusted following receipt of any valid SPP OASIS node reservation. The requested capacity will be multiplied by the TDF on all affected Flowgates and the resulting amounts will be subtracted from each Flowgates' ATC and posted to the OASIS.

### **4.5.8 Coordination of Transmission Commitments with Neighboring Organizations**

Coordination of dispatch information, Confirmed firm and non-firm system commitments from neighboring regions, RTO's, ISO's etc. will be conducted as appropriate to each type of ATC being determined to establish the most accurate system representation of base flows and generation profiles. External reservations may be retrieved from other OASIS sites or locations designated by neighboring Transmission Providers.

### **4.5.9 Margins**

Identified TRM and CBM will be applied to each Flowgate as described in the Reliability Margins section.

### **4.5.10 ATC Determination**

The following equations are used in ATC determination:

#### **4.5.10.1 Firm Base Loading (FBL)\*, \*\*:**

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?? Firm Base Loading = (Flows resultant of DNR) + (? Positive Impacts due to Firm OASIS Commitments, Confirmed, Accepted and Study) – (100% of ? Counter Impacts due to Confirmed Firm OASIS Commitments for DNR only)

### **4.5.10.2 Non-Firm Base Loading (NFBL)\*, \*\*:**

?? Non-Firm Base Loading = (Flows resultant of DNR) + (? Positive Impacts due to Firm and Non-Firm OASIS Commitments, Confirmed, Accepted and Study) – (up to 50% of ? Counter Impacts due to Confirmed Firm OASIS Commitments)

### **4.5.10.3 Firm Available Flowgate Capacity (FAFC):**

?? Firm Available Flowgate Capacity = (Total Flowgate Capacity) – (TRM) – (CBM) – (Firm Base Loading)

### **4.5.10.4 Non-Firm Available Flowgate Capacity (NFAFC, Operating Horizon):**

?? Non-Firm Available Flowgate Capacity, Operating Horizon = (Total Flowgate Capacity) – (b\*TRM) – (CBM) – (Non-Firm Base Loading)

### **4.5.10.5 Non-Firm Available Flowgate Capacity (NFAFC, Planning Horizon):**

?? Non-Firm Available Flowgate Capacity, Planning Horizon = (Total Flowgate Capacity) – (a\*TRM) – (CBM) – (Non-Firm Base Loading)

### **4.5.10.6 Firm Available Transfer Capability (FATC):**

?? Firm ATC = Most limiting value from associated Flowgates = Min {Firm Available Flowgate Capacity/TDF of appropriate path}

### **4.5.10.7 Non-Firm Path Available Transfer Capability (NATC, Operating Horizon):**

?? Non-Firm ATC, Operating Horizon = Most limiting value from associated Flowgates = Min {Non-Firm Available Flowgate Capacity, Operating Horizon/TDF of appropriate path}

### **4.5.10.8 Non-Firm Available Transfer Capability (NFATC, Planning Horizon):**

## Southwest Power Pool Criteria

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?? Non-Firm ATC, Planning Horizon = Most limiting value from associated Flowgates =  $\text{Min} \{ \text{Non-Firm Available Flowgate Capacity, Planning Horizon/TDF of appropriate path} \}$

\* Applicable pre-emption requirements of lower priority service types will be considered when evaluating requests for transmission service.

\*\* Impacts resulting from queued Study reservations will be applied according to priority when evaluating requests for transmission service.

SPP will calculate the ATC for each of its Transmission Providers on their direct interconnections (either physical interconnections or by rights to a line) and any interface or path requested by a Transmission Provider to fulfill its obligations under FERC Order 889. The ATC for requested interfaces or paths will be calculated only if requested by the Transmission Provider obligated to post the interfaces or paths.

### 4.5.11 Annual Review of ATC Process

The SPP [TAWGTWG](#) will conduct an annual review of the Regional ATC determination process including TRM and CBM to assess regional compliance with NERC requirements, regional reliability needs and functionality toward SPP Transmission Owners and Users. This review will be held at the same time as the Flowgate Evaluation process.

SPP will conduct a survey of the Transmission Owners and Users and the results will be published on the SPP website. Concerns that are identified from the survey will be forwarded to the appropriate SPP Committee.

### 4.5.12 Dialog With Transmission Users

Transmission Users may contact the [TAWGTWG](#) with any concerns regarding this criterion, its implementation, or the resulting ATC values. The concerns should be in writing and sent to the chair of the [TAWGTWG](#). The chair will then draft a written response to the Transmission User containing either an answer or a schedule for when such an answer can be provided. If the Transmission User is not satisfied, the concerns can be sent to the chair of the Engineering and Operating Committee.



**Southwest Power Pool, Inc.  
OPERATIONS POLICY COMMITTEE  
Recommendation to the Board of Directors  
January 27, 2004**

**Background**

The Board of Directors approved the SPP budget, while withholding funding authority on market related items summarized by the Finance Committee.

**Analysis**

Some of the budget amounts that require additional approval by the Board of Directors were for the meeting of the MWG, related task forces, and travel for SPP staff. An estimate was made that the ancillary costs to support the MWG efforts for the first quarter would be \$70,000.

**Recommendation**

The MWG recommends that SPP be authorized to expend up to \$70,000 for the meetings and travel related to the MWG efforts.

<b>Approved:</b>	Market Working Group Operations Policy Committee	January 6, 2004 January 15, 2004
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<b>Action Requested:</b>	Approve Recommendation
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# Request for Proposal

For the Purpose of  
Engaging an Independent Market Monitor

# Request for Proposal

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# Section I - Background

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## Information to Bidders

### Purpose

The purpose of this Request For Proposal (RFP) is to invite proposals from identified firms, consultants, electric industry researchers and other regional transmission organizations (RTO) for services required by the Southwest Power Pool Inc. (SPP) in order to meet the requirements of an independent market monitoring function.

The SPP will only consider proposals that encompass all requirements of the market monitoring function. SPP requests the Bidder provide as much information as possible in response to each requirement specified in this RFP. The Bidder must identify any specific requirements with which it is unwilling or unable to provide.

### General Information

The key dates for the RFP process are listed below:

- All communication regarding this RFP will be with Richard Dillon of SPP.
- The RFP will be posted on the SPP website ([www.spp.org](http://www.spp.org)) by Friday, January 16, 2004.
- Expression of Interest must be provided by Friday, January 23, 2004 via e-mail to Richard Dillon: [rdillon@spp.org](mailto:rdillon@spp.org).
- Questions for clarification must be submitted via email by Friday, January 23, 2004.
- Answers to questions will be posted on the SPP website ([www.spp.org](http://www.spp.org)) by Friday, January 30, 2004.
- Written proposals must be submitted by Monday, February 16, 2004 by 1200 Central Time. Any proposals received after this time will be rejected. Three bound and one unbound copy of each proposal should be sent, via overnight service, to:

Richard Dillon

Southwest Power Pool

415 N. McKinley, 800 Plaza West

Little Rock, AR 72205

Phone: (501) 614-3228

Email: [rdillon@spp.org](mailto:rdillon@spp.org)

- After reviewing written proposals, the Evaluation Committee<sup>1</sup> will select top Bidders to present their proposals and qualifications orally on Thursday, February 26, 2004.
- Selection of the prospective supplier will occur during the week of March 1, 2004.
- Contract discussions with the prospective supplier are anticipated to be underway by Monday, March 15, 2004.
- Market Monitoring and Market Power Mitigation protocol development will begin immediately after contract approval by the Board of Directors and execution of the contract.
- Market Monitoring and Market Power Mitigation protocols are anticipated to be filed with FERC during August 2004.
- The in-service date of an RTO administered market is anticipated to be November 2004.

SPP reserves the right to amend the RFP at any time before the specified due date for proposals. After the proposal due date, amendments to the RFP shall be sent only to bidders who submitted a proposal.

Before the proposal due date, a submitted proposal may be withdrawn by submitting a written request for its withdrawal to SPP signed by the Bidder and mailed to Richard Dillon at the SPP Corporate Office.

All those submitting proposals shall keep their proposals open for acceptance by SPP for a period of 180 days. All proposals shall become the property of SPP, subject to non-disclosure at the request of the Bidder.

Any cost incurred by the Bidder in the preparation of the proposal will be borne by the Bidder and the proposal will become the property of SPP.

No oral or written statements made by SPP personnel shall be considered addenda to or part of this RFP unless the statement is confirmed in writing and identified as a written addendum to this RFP.

No liability is assumed for errors or omissions in this RFP or any information, correspondence, notices or other documentation related to this RFP. During the evaluation process, it will be assumed that respondents received all amendments and addenda for this RFP.

SPP reserves the right to reject any or all Bidder proposals after evaluation.

SPP reserves the right to seek proposal clarification with any Bidder to assist in making decisions.

The responses will be evaluated according to, but not restricted to, the following criteria:

- The Bidder's demonstration of its capabilities to provide the services required given the broad areas of technical expertise and periodic reporting related to the performance of the market monitoring function. Areas of expertise include, but are not limited to technical knowledge of energy markets, written communication skills, data gathering expertise, historical relationships with regulatory agencies, development of economic models;

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<sup>1</sup> Exact composition of the Evaluation Committee is to be decided and announced at a later date but prior to February 23, 2004.

- The Bidder's ability to submit a comprehensive plan for performing the functions described under Section III "Market Monitoring Requirements" of this RFP;
- The Bidder's overall responsiveness and consistency in meeting the requirements as specified in Section III;
- Demonstration by the Bidder of an ongoing business capability, e.g. financial statements, etc.;
- Demonstration by the Bidder of independence from any market participant or potential market participant;
- The Bidder's organizational and technical capabilities to provide services
- The Bidder's ability to meet the present and future SPP requirements for the services proposed;
- The Bidder's ability to meet the designated timelines and the testing dates agreed upon with SPP;
- The compliance of the Bidder's response to the specification(s).

Requests for clarification, and responses, on the RFP shall be in writing and forwarded to [rdillon@spp.org](mailto:rdillon@spp.org) according to the timeline above. Responses to written requests will be distributed in writing to all known recipients of the RFP without identifying the source of the question.

### **Disclosure of Interest**

All Bidders shall make full disclosure in writing at the time of the proposal of any business relationships with SPP personnel or business relationships with any SPP participants or their personnel, including but not limited to the following:

- Ownership of shares or interests of the bidder by any SPP personnel, SPP market participant or personnel of any SPP market participant.
- Detail of any directorships in the bidding entity or employment by the bidding entity of any SPP personnel or personnel of any SPP market participant.
- Contractual relationships with SPP, SPP employees or any stakeholder in the SPP RTO market.

By submission of a proposal, the bidder certifies (and in the case of a joint proposal, each party certifies) that:

- No relationship exists or will exist during the contract period between the Bidder and SPP or SPP market participant that interferes with fair competition or is a conflict of interest.
- The proposal has been developed independently without consultation, communication or agreement with any employee or consultant of SPP or any employee or consultant of an SPP market participant who has worked on the development of this RFP, or with any person serving as an evaluator of the proposals submitted in response to this RFP.

If a Bidder fails to disclose an interest, SPP reserves the right to terminate or cancel a contract, into which SPP may have been entered with a Bidder.

## Section II - Overview

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### Overview

#### Regulatory Overview

On October 15, 2003, SPP filed with FERC seeking recognition as a Regional Transmission Organization under FERC Order No. 2000. SPP is committed to meeting FERC expectations under Order No. 2000.

SPP is headquartered in Little Rock, Arkansas. It began operation in 1941, when 11 companies voluntarily came together to serve the needs of national defense. In June 1968, SPP became one of the original regional reliability councils of NERC when it was formed. In 1997 SPP began operation as a regional security coordinator. SPP has 55 members and serves over 4 million customers in a 400,000 square mile area that encompasses 17 control areas. The region includes all or portions of the following states: Arkansas, Kansas, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, and Texas.

#### SPP Services

SPP services include tariff administration, regional security coordination, regional transmission modeling and reliability assessment, and management of the operating reserve sharing pool.<sup>2</sup> The SPP tariff offers customers “one stop shopping” for transmission service across the region. SPP will process transmission requests, determine available transfer capability, and will schedule submitted transactions.

The SPP tariff effective February 1, 2000, allows SPP to administer regional network transmission service, firm and non-firm point-to-point transmission service, and coordinate the procurement of ancillary services as specified in Order 888. SPP collects Transmission Tariff revenues and distributes them to members in accordance with the Membership Agreement.

SPP coordinates generation and transmission maintenance and is responsible for the reliable operation of the transmission grid. It also coordinates emergency response. Members are required to follow SPP procedures under emergency conditions unless such directives would cause potential human injury. The RTO would be responsible for grid planning; member transmission owners would be responsible for construction. Members will be compensated for construction to fullest extent permitted by FERC or other jurisdictional body.

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<sup>2</sup> SPP Reserve Sharing Group Participants include entities outside the SPP footprint.

## **Market Implementation Timeline**

Phase 1 (2004) – Real-Time balancing market with market power monitoring and mitigation (an example of the Issue List is included in the Appendix).

- Increment 1 (February 2004): Establish infrastructure and processes that allow for a SPP provided non-binding settlement of Energy Imbalance using proxy rates;
- Increment 2 (April 2004): Enhance reliability data and net scheduled interchange; and,
- Increment 3 (November 2004): Offer based energy imbalance market along with market monitoring and market power mitigation.

Phase 2 (November 2005) – Market-based congestion management.

Phase 3 (November 2006) – Ancillary services market.

## **Board of Director's Actions**

In June 2003, the Board of Directors approved SPP proceeding on the Market Implementation Timeline discussed in this document. During October 2003, the Board of Directors directed that expenditures related to the market may be subject to additional approval by the Board of Directors.

## **Members**

Membership is broad and varied and includes investor-owned, municipals, cooperatives, marketers, state agencies, federal power agencies, and independent power producers. A list of members can be found at [http://www.spp.org/About\\_Members.htm](http://www.spp.org/About_Members.htm). In addition to members, SPP also has many other participants that are Transmission Customers but are not members of SPP.

## **SPP Governing Documents**

The following documents define the obligations of SPP members and provide direction for SPP policymaking. If not attached to this document, they can be found at the SPP website at [www.spp.org](http://www.spp.org) or at [www.ferc.gov](http://www.ferc.gov).

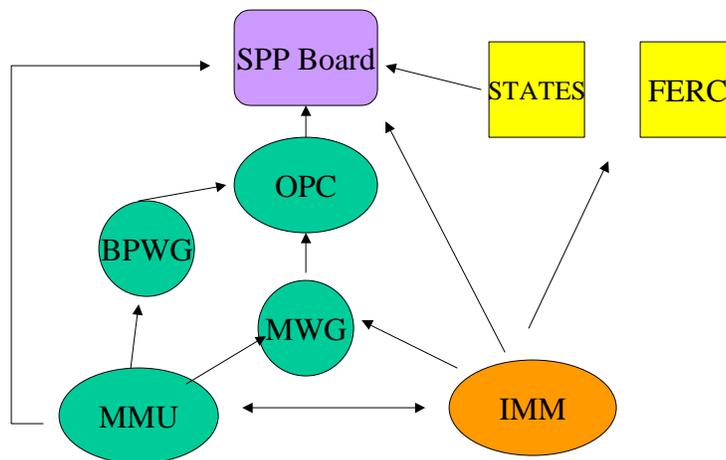
- SPP Articles of Incorporation
- SPP Bylaws
- SPP Standards of Conduct
- Tariff
- Membership Agreements
- Network Operating Agreements
- FERC Order 2000
- Order 888

The Board of Directors' minutes and Market Working Group minutes may also be obtained at the SPP website.

# Section III - Market Monitoring Requirements

## Reporting Relationships

### Reporting Relationships



October 22, 2003

3

The Independent Market Monitor (IMM) will interact with the Market Monitor Unit (MMU) of SPP, market participants, and regulators in the acquisition of data and implementation of the Market Monitoring function and/or Market Power Mitigation initiative. The IMM will be responsible to the SPP Board of Directors. Reports to the SPP Board of Directors will be available to the Market Working Group (MWG), Market Monitoring Unit, and the State and Federal regulators. Recommendations for changes to the Market Structure or for Monitoring and Mitigation purposes are subject to the approval by the Board of Directors and possibly the FERC. The Board of Directors is anticipated to consult with the State and Federal regulators, MWG, and MMU prior to granting such approval.

## Operational Relationships

### Participant

The IMM may anticipate some interaction with participants, both during the development of the market design, market mitigation protocols, and during ongoing operations. Such interaction is anticipated as perceived deficiencies in the market design or operations are identified and may be as a result of a group discussion or individual participant concern. If an investigation is requested, the process for initiating an investigation is that the IMM formally request that the MMU perform an investigation. The MMU may modify the requested investigation and may also request participation by the IMM in the investigation. The result of an investigation may result in a notification to the MWG of a weakness/failure in market procedures with a recommendation for improvement. The MWG is expected to respond to the MMU as to their decision within a timely period, but not less than sixty days. Should the MWG not take timely actions to resolve issues brought to its attention, the IMM may recommend changes to the Board of Directors, FERC and state regulators. The MMU and IMM may review the MWG decision. If the recommendation was not adopted, there may be a report to the Board of Directors and/or State and Federal Regulators by the IMM. The IMM is responsible for communicating to the initiating party progress and the resolution of the issue.

### Market Monitoring Unit

The IMM may obtain data for analysis and review purposes through the MMU or other sources. Investigations initiated by the IMM or MMU may result in interaction between the two entities. Development and measurement of metrics will occur in concert with the MMU and various regulatory agencies. Development of the market power mitigation tests (conduct and impact) are performed in concert with the MMU and MWG. The Board of Directors may recommend and FERC must approve such tests. The daily operation of market power mitigation, and the consequence of such tests, is the responsibility of the MMU.

### Market Working Group

The IMM will develop the market power mitigation tests (conduct and impact) in concert with the MMU and MWG. The Board of Directors may recommend and FERC must approve such tests.

### Board of Directors

The IMM will respond to ad hoc requests of the Board of Directors. The IMM will also prepare the annual “State of the Market” report, which includes review of market operations and the access of transmission capacity for use by the market.

### FERC/State Regulatory

The IMM, in conjunction with various regulatory agencies, the MMU and MWG, will develop and measure comparative reporting metrics. Development of the market power mitigation tests (conduct and impact) will be performed in concert with the MMU, MWG, and various regulatory agencies. The Board of Directors may recommend and FERC must approve such tests. The respondent is obligated to satisfy any and all requirements of FERC’s Order in Investigation of Terms and Conditions of Public Utility Market-Based Rate Authorizations, Docket No. EL01-118-000. Respondent will state how it will comply with this Order.

## **SPP Operation Personnel**

The IMM will interact with SPP Operations Personnel in the development and maintenance of economic models

## **Reports**

1. The IMM assists in evaluating the effectiveness of the MMU. The result of the evaluation will be reported to the Board of Directors by the IMM.
2. The IMM will prepare an annual “State of the Market” report, including evaluation of market functions and transmission, and render the report to the Board of Directors, FERC, State Regulatory, and make it available to the SPP stakeholders.
3. The IMM will prepare quarterly and an annual “metrics” report for inter-RTO comparisons and render such report to the Board of Directors, FERC, State Regulatory, and make it available to the SPP stakeholders.
4. The IMM will render pre-release versions of the “State of the Market” and “metrics” reports to the MWG for informational purposes only.
5. The IMM will analyze and report market data on a quarterly basis for indications of market power, including:
  - Physical withholding
  - Artificial barriers to entry
  - Impact of the use of resources for reliability versus energy purposes
  - Market response to price spikes
  - Analysis of bidding patterns

## **Consult on Market Design Issues**

1. The IMM will work with the MWG and MMU to identify potential weaknesses in the Market Design during development. Potential weaknesses may also be identified through the periodic reporting to the Board of Directors.
2. Upon request, the IMM will advise the MWG and MMU on Market Design.
3. The IMM will recommend design of Real-time Mitigation Protocols to the MWG and MMU. These protocols are expected to be very transparent to the market participants.
4. The IMM is expected, on a request basis, to educate participants on market design and market power issues.

## Investigations

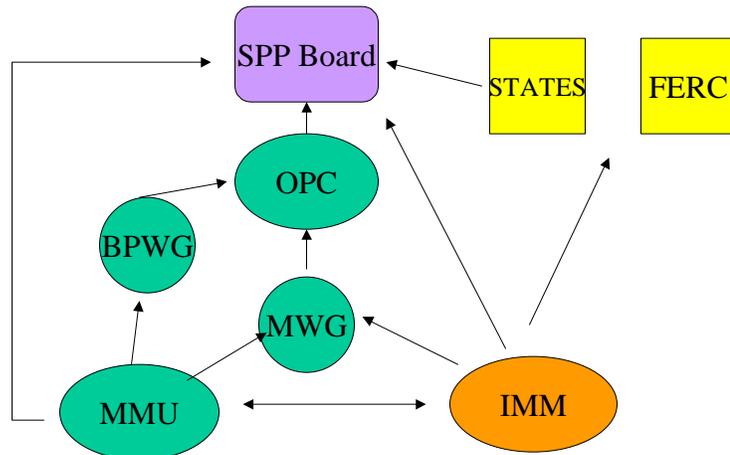
The IMM will assist the MMU in investigations on an as requested basis. The IMM is responsible for periodic reviews of market power. The IMM will be notified of types of investigations requested of the MMU.

# Section IV – Pricing Terms

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1. Fixed price for the reporting function.
2. Fixed price consulting on Phase 1 Market Design.
3. Fixed price consulting on Phase 2 Market Design.
4. Time and Materials rates.

## Reporting Relationships



October 22, 2003

3

# Appendix A: Bidder Qualification Sheet

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**BIDDERS'S QUALIFICATIONS AND FINANCIAL INFORMATION**

**SECTION 1 - GENERAL INFORMATION**

1. NAME AND ADDRESS <i>(Street, City, State and ZIP Code)</i>	2. TYPE OF ORGANIZATION <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">SOLE PROPRIETORSHIP</td> <td style="width:30%;">OTHER</td> </tr> <tr> <td>PARTNERSHIP</td> <td></td> </tr> <tr> <td>CORPORATION</td> <td></td> </tr> </table> 2a. DATE ORGANIZATION ESTABLISHED STATE OF INCORPORATION <i>(If applicable)</i>	SOLE PROPRIETORSHIP	OTHER	PARTNERSHIP		CORPORATION																	
SOLE PROPRIETORSHIP	OTHER																						
PARTNERSHIP																							
CORPORATION																							
1a. LOCATION OF RELEVANT BRANCHES <i>(Specify City and State)</i>	3. KIND OF BUSINESS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:70%;">CONSULTING SERVICES</td> <td style="width:30%;">OTHER</td> </tr> <tr> <td>OUTSOURCE SOLUTION</td> <td></td> </tr> <tr> <td>PRODUCT DEVELOPMENT</td> <td></td> </tr> </table>	CONSULTING SERVICES	OTHER	OUTSOURCE SOLUTION		PRODUCT DEVELOPMENT																	
CONSULTING SERVICES	OTHER																						
OUTSOURCE SOLUTION																							
PRODUCT DEVELOPMENT																							
4. OWNERSHIP INFORMATION - GENERAL PARTNERS - PRINCIPAL STOCKHOLDERS - PARENT <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:60%;">NAME</th> <th>TITLE</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> </tbody> </table>		NAME	TITLE																				
NAME	TITLE																						

**SECTION II - REFERENCES**

1. REFERRALS *(Not less than 3)*

COMPANY NAME	TELEPHONE NO.	CONTACT PERSON	ADDRESS <i>(Street, City, and ZIP Code)</i>	DESCRIPTION OF SYSTEM OR SERVICES DELIVERED

2. ARE YOU NOW IN, OR PENDING DEFAULT ON ANY OBLIGATIONS TO BANKS OR OTHER FINANCIAL INSTITUTIONS?

YES   
  NO   
 *(If "YES", provide detailed information, Section V, Remarks)*

3. LIST THE FIVE LARGEST JOBS YOU HAVE COMPLETED IN THE LAST FIVE YEARS

LOCATION	OWNER'S NAME AND ADDRESS	BRANCH	CONTRACT	AMOUNT OF WORK (US\$)

4. CHECK PROPER BOX *(If "YES" explain under Section V Remarks)*

HAVE YOU, DURING THE PAST TWO YEARS BEEN CHARGED WITH A FAILURE TO MEET THE CLAIMS OF YOUR SUBCONTRACTORS OR SUPPLIERS?

YES   
  NO



**Southwest Power Pool  
Generation Working Group  
Charter**  
~~February 8, 1999~~November 10, 2003

## PURPOSE

The Generation Working Group (GWG) maintains, coordinates, and implements Criteria related to ~~production~~generation in Southwest Power Pool (SPP). It is also responsible for ensuring ~~that SPP~~ Criteria are in compliance with ~~generating issues in the~~ NERC ~~Planning and Operating~~Reliability Standards relating to generation for the SPP region.

## SCOPE OF ACTIVITIES

In carrying out its purposes, the ~~Generation Working Group~~GWG will:

1. Monitor the operating reliability of generating units within ~~the~~ SPP and report results to the ~~Engineering & Operating~~Operations Policy Committee (OPC).
2. Monitor and establish criteria for the ratings of generating units within SPP and report results to the ~~Engineering & Operating Committee~~OPC at its regular meetings.
- ~~3. Coordinate the reporting of NERC Generator Availability Data System information by members and work with NERC groups on any needed modifications to this data base.~~
- ~~4.~~3. Work with other working groups to promote a high standard of generating unit operating practices within SPP and NERC, through recommendation of appropriate improvements in operating practices and reliability.
- ~~5.~~4. Review and periodically monitor the ~~NERC Planning and Operating~~reliability ~~S~~ standards impact on generation and recommend appropriate changes in the SPP and/or NERC Criteria.
5. Provide technical support for the determination of the appropriate methodology and results associated with regional resource adequacy requirements.

## REPRESENTATION

The ~~Working Group~~GWG is comprised of at least six and no more than eight members, (including a Chairman), all who are appointed by the Board of Directors. Members should be experienced in ~~production~~generation related matters. The representation should represent diversity geographically within the region, as well as different types of membership, including Regional State Committee (RSC) representation. Each member has one vote and approval of business requires a simple majority of members present and voting.

The ~~Working Group~~GWG Chairman is appointed by the Board of Directors following consultation with the ~~Engineering & Operating Committee~~OPC leadership.

## DURATION

SPP Working Groups are permanently assigned as outlined in the SPP Bylaws. Working Group representation will be reviewed for appropriateness by each new Chair of the Board of Directors. The term of the Chairman shall coincide with the two-year term of the Chair of the Board of Directors. The Bylaws do not prevent renewal of Chairmanship.

## REPORTING

DRAFT

01/07/04~~01/06/04~~10/03/03

The ~~Working Group~~GWG reports to the SPP ~~Engineering & Operating Committee~~OPC. The ~~Working Group~~GWG Chair will periodically report to the ~~Engineering and Operating Committee~~OPC and Board of Directors, as required, on the ~~Working Group~~GWG's activities, assignments, and recommendations requiring ~~Engineering & Operating~~OPC approval.

### MEETING PARTICIPATION

Per SPP Bylaws, GWG meetings are open. However, discussion of some issues will require attendance limited to entities that do not perform merchant functions and who have signed the NERC Confidentiality Agreement. Participation by regulatory representatives will not be restricted.

**Southwest Power Pool**  
**Operating Reliability Working Group**  
**Charter**  
~~January 8, 2004~~ **February 8, 1999**

## **PURPOSE**

The Operating Reliability Working Group (ORWG) maintains, coordinates and implements Criteria related to the reliable and secure operation of the bulk electric system operated by the members of the Southwest Power Pool (SPP). The ORWG provides oversight and direction for the ~~Reliability~~ **Security** Coordinator function of the SPP. The ORWG also is responsible for ensuring compliance of the SPP Criteria with NERC Operating Policies and Standards.

## **SCOPE OF ACTIVITIES**

In carrying out its purpose, the ORWG will:

1. Review, modify and develop any necessary SPP Criteria related to the operation of the bulk electric system within the SPP.
2. Review, modify and develop any ~~Reliability~~ **Security** Coordinator procedures and Transmission Tariff procedures related to the operational implementation of the SPP Regional Transmission Tariff ~~in cooperation with under the direction of~~ the Regional ~~Tariff Pricing~~ Working Group ~~and the Business Practices Working Group~~.
3. Direct and coordinate the activities of the SPP ~~Reliability~~ **Security** Coordinator as they relate to SPP Criteria and the SPP Regional Transmission Tariff.
4. Review NERC Operating Policies for application to the SPP and any related SPP Criteria and procedures.

## **REPRESENTATION**

The ORWG is comprised of at least six and no more than ten members, including a Chairman, who are appointed by the Board of Directors. Voting shall be done in accordance with the SPP Bylaws. The ORWG shall maintain a membership with representation of transmission providers and marketing entities.

## **DURATION**

SPP Working Groups are permanently assigned as outlined in the SPP Bylaws. Working Group representation will be reviewed for appropriateness by each new Chair of the Board of Directors. The term of the Chair shall coincide with the two-year term of the Chair of the Board of Directors. The Bylaws do not prevent renewal of the current Chair's term.

## **REPORTING**

The ORWG reports to the SPP ~~Engineering & Operating Operations Policy~~ Committee for those activities related to SPP Criteria and ~~Reliability~~ **Security** Coordinator oversight. The ORWG reports to other SPP Committees or Working Groups for those activities assigned to the ORWG by the Board of Directors and other committees.



**Southwest Power Pool  
Operator Training Working Group  
Charter**  
~~February 1, 1999~~ January 2004

## **PURPOSE**

The Operator Training Working Group (OTWG) is responsible for identifying and managing training activities for system operators.

## **SCOPE OF ACTIVITIES**

In carrying out its purpose, the OTWG will:

1. Identify operating personnel training needs among SPP members and determine the best and most cost-effective methods to meet those needs.
2. Direct the SPP Staff in the development, implementation, management, and maintenance of the SPP System Operator Training Program self-study training materials and SPP classroom training activities.
3. Organize and conduct meetings and seminars for SPP system operators to present current topics.
4. Review and develop any necessary SPP Criteria related to training.
5. Review and provide feedback on NERC/~~NAERO~~-related training initiatives and requirements
6. Provide general assistance to SPP members in their efforts to comply with NERC training standards and requirements.
7. Perform other duties as directed by the ~~Engineering and Operating Committee~~ Operations Policy Committee.

## **REPRESENTATION**

The OTWG shall be comprised of the following:

- Chair with voting privileges
- Vice-Chair with voting privileges
- ~~Four~~ Five additional voting representatives
- Secretary (non-voting) who shall come from SPP staff

The OTWG shall be formed in accordance with the SPP Bylaws. Members shall be appointed by the SPP Board of Directors and serve a term of two years. Members should be selected based on their exposure to system operator training. Desired responsibilities include those who provide training, supervise those who train, or system operators who receive training.

## **DURATION**

The OTWG shall review its scope every two years or as appropriate.

## **REPORTING RELATIONSHIPS**

## **OTWG**



The OTWG reports to the SPP ~~Engineering and Operating~~ Operations Policy Committee. The OTWG will report to the ~~E&O~~ OPC as required on the activities, assignments, and recommendations requiring

~~E&O~~ OPC and Board of Directors approval. The OTWG works closely with SPP Staff dedicated to training to carry out training initiatives.