

ADJACENT RELIABILITY COORDINATOR COORDINATION AGREEMENT

This Agreement, being an Adjacent Reliability Coordinator Coordination Agreement, is made this 12th day of May 2006 ("Agreement") by and between Southwest Power Pool ("SPP") and Tennessee Valley Authority ("TVA") hereinafter collectively referred to as the "Parties" and individually as a "Party."

W I T N E S S E T H:

WHEREAS, SPP serves as the Reliability Coordinator in a region (the "SPP Reliability Area") that includes the Balancing Authorities, Transmission Operators, and other entities set forth in its NERC-approved Reliability Plan (collectively referred to as the "SPP Reliability Area Member Systems"); and

WHEREAS, TVA serves as the Reliability Coordinator in a region (the "TVA Reliability Area") that includes the Balancing Authorities, Transmission Operators, electric utilities, and other entities set forth in its NERC-approved Reliability Plan (collectively referred to as the "TVA Reliability Area Member Systems"); and

WHEREAS, electric systems in the SPP Reliability Area are interconnected with electric systems in the TVA Reliability Area; and

WHEREAS, the North American Electric Reliability Council ("NERC") Board of Trustees approved adoption of "Reliability Standards for the Bulk Electric Systems of North America" and conversion of the NERC Operating Manual to a subset of these standards on February 8, 2005, and Standards IRO-001-0 (Reliability Coordination – Responsibilities and Authorities) and IRO-002-0 (Reliability Coordination – Facilities) of the NERC Operating Manual which address coordination agreements and data sharing for Reliability Coordinators; and

WHEREAS, Requirement 7 of Standard IRO-001-0 (Reliability Coordination – Responsibilities and Authorities) of the NERC Operating Manual states that the "Reliability Coordinator shall have clear, comprehensive coordination agreements with adjacent Reliability Coordinators to ensure that System Operating Limit or Interconnection Reliability Operating Limit violation mitigation requiring actions in adjacent Reliability Coordinator Areas are coordinated"; and

WHEREAS, Requirement 2 of Standard IRO-002-0 (Reliability Coordination – Facilities) of the NERC Operating Manual states that "Each Reliability Coordinator shall determine the data requirements to support its reliability coordination tasks and shall request such data from . . . adjacent Reliability Coordinators"; and

WHEREAS, Requirement 3 of Standard IRO-002-0 (Reliability Coordination – Facilities) of the NERC Operating Manual states that "Each Reliability Coordinator – or

its Transmission Operators and Balancing Authorities – shall provide, or arrange provisions for, data exchange to other Reliability Coordinators or Transmission Operators and Balancing Authorities”;

NOW, THEREFORE, in consideration of the premises and mutual covenants set forth herein, it is agreed as follows:

ARTICLE I **PURPOSE**

The purpose of this Agreement is to augment and further support the reliability of both Parties' respective Reliability Areas. It provides for system coordination and the exchange of data and information over the Interregional Security Network (“ISN”) and the Reliability Coordinator Information System (“RCIS”) by and between the Parties so that each can coordinate its plans and operations in the interest of reliability. It also provides a means for exchanging information and system data, and for making necessary regional studies and recommendations designed to improve reliability of the interconnected bulk power systems.

ARTICLE II **TERM OF AGREEMENT**

SECTION 2.1 Term. This Agreement shall become effective on the first day of the month following the month in which all Parties have executed this Agreement and shall continue in effect until terminated by either Party upon not less than thirty (30) days written notice to the other Party. The right to terminate shall be within the sole discretion of either Party.

SECTION 2.2 NERC Standard Revisions. In the event that revisions to the NERC Reliability Standards referenced in this Agreement, are approved by the NERC Board, the Parties shall meet (either in person or via conference call) within ninety (90) days of the approval to discuss whether such revisions affect the terms and conditions of this Agreement, the necessity for any mutually agreeable revisions to this Agreement, and/or whether the revisions affect the need for this Agreement.

ARTICLE III **ADMINISTRATION**

The Parties, or their designated representatives, shall meet no less than once per calendar year (either in person or via conference call) to review this Agreement and conduct matters provided hereunder. The Parties, or their respective designees, may meet at more frequent intervals should they deem it necessary.

ARTICLE IV
COORDINATION

SECTION 4.1 Process for Coordinating Requesting Assistance

SECTION 4.1.1 Process for Coordinating Energy Emergency Assistance. In the event either Party needs to request energy emergency assistance from the other Party, the requesting Party shall, consistent with NERC Reliability Standard EOP-002-0 (Capacity and Energy Emergencies) and Attachment 1-EOP-002-0 (Energy Emergency Alerts) of Standard EOP-002-0, issue an Energy Emergency Alert (“EEA”) and, notify the other Party, via the RCIS of the EEA and request from that Party the assistance that the requesting Party believes is needed to alleviate the problems causing the EEA. The other Party shall provide the appropriate emergency assistance consistent with Standard EOP-002-0. The requesting Party must notify the other Party, via the RCIS, when the EEA has ended.

SECTION 4.1.2 Process for Coordinating Operating Limit Violations Assistance In the event either Party needs to request assistance from the other Party, the requesting Party shall, consistent with NERC Reliability Standard IRO-004-0 (Reliability Coordination – Operations Planning), Standard IRO-005-0 (Reliability Coordination – Current Day Operations), and Standard IRO-006-0 (Reliability Coordination – Transmission Loading Relief), notify the other Party, and request from that Party the assistance that the requesting Party believes is needed to alleviate the operating limit violations. The other Party shall provide the appropriate assistance to alleviate the operating limit violations consistent with Standard IRO-004-0, Standard IRO-005-0.

SECTION 4.2 Reliability Problem Identification. In the event a Party makes an identification of a potential reliability problem in the other Party’s Reliability Area, it will make reasonable efforts to provide notice to the other Party as soon as possible. In the event such notification is made, the Parties agree that the notifying Party is not providing any warranty or guaranty that the potential problem actually exists. This provision shall also include the identification of any Interconnection frequency error causing a potential reliability problem.

SECTION 4.3 Data Exchange. The Parties shall exchange the data that they require from each other to support their respective reliability coordination tasks and duties, as set forth in Exhibit A to this Agreement. The Party requesting that additional data be included in Exhibit A for exchange purposes must provide the other Party with a reliability-based justification for needing such data. In exchanging data, the Parties shall utilize the ISN or another agreed upon data exchange medium. The Party receiving a request to provide data has the right to accept or reject the other Party’s justification. In the event a dispute arises regarding the need for such data to be exchanged, it shall be resolved in consultation with the appropriate regional council.

SECTION 4.4 Outage Coordination

SECTION 4.4.1 Planned Outages

Each Party shall post transmission and generation outages to NERC SDX System. Communication of outage schedules shall occur on a regular basis as determined jointly by the Parties or any future applicable Reliability Council, or NERC requirements. Each Party shall communicate to the other Party potential impacts of proposed Scheduled Outages as necessary.

SECTION 4.4.2 Forced Outages

A Party experiencing any forced generation and transmission outages shall inform the other Party as soon as practicable but no later than 30 minutes after the event.

ARTICLE V FACILITY EVACUATION

If either Party is required to evacuate its operational work area, it shall notify the other Party of such evacuation as soon as feasible by any practical means of communications. The contact information for the respective back-up control centers shall be reviewed on an annual basis and updated as necessary.

ARTICLE VI LIMITATION ON OBLIGATION

SECTION 6.1 This Agreement is not intended to affect the control that the Member Systems of the SPP and TVA Reliability Areas, respectively, have over their own facilities and the use thereof.

SECTION 6.2 Nothing in this Agreement shall require a Party or such Member Systems to construct facilities primarily to the benefit of the other Party or its Member Systems.

SECTION 6.3 Nothing in this Agreement shall entitle a Party or such Member Systems to interfere with the other Party's or a Member System's right to proceed with system additions or alterations, which, in its sole opinion, are required to provide adequate and reliable service to its customers.

SECTION 6.4 Nothing in this Agreement shall require a Party or such Member Systems to take any action requested by the other Party, including without limitation the supply of emergency energy, load shedding, the expenditure of funds, or acquisition of equipment, if: (i) such actions would, in its sole judgment, cause it to violate safety, equipment, or regulatory or statutory requirements, or (ii) unless such actions are needed to prevent instability, separation or a cascading event (i.e., IROL violation), or (iii) if such actions, in the sole judgment of the Party whose action is requested, undermine the reliability of the Interconnection, or (iv) if the other Party or Member Systems of such other Party

have not implemented measures comparable to those requested, consistent with Standard EOP-002-0 (Capacity and Energy Emergencies) and Standard IRO-005-0 (Reliability Coordination – Current Day Operations). In the event a Member System declines to take such requested actions, it must immediately inform its own Reliability Coordinator so that such information can be immediately relayed to the other Party requesting such action.

SECTION 6.5 TVA Limitations. TVA’s ability to sell electric power is limited by the TVA Act to sales with neighboring electric systems with whom TVA had exchange power arrangements as of July 1, 1957. Nothing in this Agreement shall obligate TVA to make any sales of power in violation of the TVA Act, regardless of the circumstances confronting the Parties.

ARTICLE VII LIABILITY

SECTION 7.1 No Liability. In no event shall either Party (including its officers, directors, employees, and agents) be liable to the other Party, or the other Party’s Member Systems, or any other person or entity, for losses or damages (whether direct, indirect, incidental, or consequential) arising out of or related to any performance, non-performance or delay in performance of an obligation or action under this Agreement, whether based on contract, tort, strict liability, warranty, or otherwise, including without limitation, any action or failure to act by either Party related to any request, recommendation, or requirement of either, or another, Reliability Coordinator.

SECTION 7.2 Indemnification. Each Party shall at all times indemnify, defend, and save harmless the other Party, its affiliates, and the officers, employees, and agents of each of them (collectively, the “Indemnified Parties”) from any and all damages, losses, claims, including, without limitation, claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorneys’ fees, and all other obligations by or to third parties arising out of or resulting from its own performance or non-performance of its various reliability obligations, except in the event of recklessness, gross negligence, intentional wrongdoing, or willful misconduct by such other Indemnified Parties.

ARTICLE VIII MISCELLANEOUS PROVISIONS

SECTION 8.1 Termination Notice. Any termination notices required by this Agreement shall be in writing and must be given by registered U.S. Mail, or overnight express mail delivery to the applicable address as provided below:

If to SPP:

Carl Monroe
Sr. Vice President and COO
Southwest Power Pool
425 N. McKinley
Little Rock, Arkansas 72205

If to TVA:

James R. Dalrymple
Manager, Transmission System Services
Tennessee Valley Authority
1101 Market Street, PCC 2A-C
Chattanooga, Tennessee 37402-2801

SECTION 8.2 Waiver. Any waiver at any time by either Party of its rights under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not be considered a waiver with respect to any subsequent default or matter.

SECTION 8.3 Assignment. Neither Party shall sell, assign, or otherwise transfer any or all of this Agreement or any or all of its respective rights, or delegate any or all of its respective obligations under this Agreement without the prior written consent of the other Party.

SECTION 8.4 Merger Clause. This Agreement and the Exhibits comprise the full and complete statement of the agreement between the Parties and supersedes and cancels all prior communications, understandings and agreements between the Parties, whether written or oral, expressed or implied relating to the subject matter of this Agreement. No amendments, changes or modifications to this Agreement are valid, unless made in writing and signed by a duly authorized representative of each of the Parties.

SECTION 8.5 Responsibility for Costs. No fees, or other amounts are payable as a result of application of this Agreement. Each Party shall be solely and independently responsible for its conduct and any expenses or costs incurred under this Agreement.

SECTION 8.6 Nature of Relationship. The Parties hereto agree that no employment, agency, joint venture, teaming, partnership, business arrangement or fiduciary relationship shall be deemed to exist or arise between them with respect to this Agreement.

SECTION 8.7 Governing Law. This Agreement, and the rights and obligations of the Parties arising out of this Agreement, shall be governed by and shall be construed, enforced, and performed in accordance with the Federal laws of the United States of America. To the extent that there is no applicable Federal law, this Agreement, and the rights and obligations of the Parties arising out of this Agreement, shall be governed by and shall be construed, enforced, and performed in accordance with the laws of the State of Tennessee, without regard to the principles of conflicts of laws.

SECTION 8.8 Headings. The descriptive headings in the various Articles and Sections of this Agreement have been inserted for convenience of reference only, and shall in no way modify or restrict any of the terms and provisions hereof.

SECTION 8.9 Exhibits. The Exhibits to this Agreement are attached hereto and incorporated by reference. The Exhibits may be amended from time to time as specifically set forth in the respective Exhibits.

SECTION 8.10 Execution. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same instrument. It shall not be necessary that any single counterpart hereof be executed by all Parties so long as at least one counterpart is executed by each Party. A facsimile or photocopy of any signature shall have the same force and effect as an original.

SECTION 8.11 Other Entities. Nothing in this Agreement is intended to confer benefits upon any person or entities not a Party, including without limitation the Member Systems of the SPP or TVA Reliability Areas, respectively. Nothing in this Agreement shall be construed as a stipulation for the benefit of others, and no third party, including without limitation the Member Systems of the SPP or TVA Reliability Areas, respectively, shall be entitled to enforce this Agreement against either Party.

SECTION 8.12 No Representation or Warranty. Neither Party shall be deemed to make any representation or warranty, express or implied, as to the truth, accuracy or completeness of any information or data exchanged or provided (or not exchanged or provided) to the other Party pursuant to this Agreement. The receiving Party, and all persons receiving such data and information, shall be solely responsible for any reliance thereon, and all investigation thereof, and expressly waive any and all rights of recourse against the Party providing the information.


SECTION 8.13 Confidentiality

The Parties agree that their confidentiality obligations under this Agreement shall be consistent with and subject to the requirements of the NERC Reliability Coordinator Standards of Conduct.

IN WITNESS WHEREOF, the signatories hereto have caused this Agreement to be executed by their duly authorized officers.

SOUTHWEST POWER POOL



By: 
Carl Monroe
Senior Vice President and COO

TENNESSEE VALLEY AUTHORITY


By: 
for Van M. Wardlaw, P.E.
Vice President
Transmission and Reliability

EXHIBIT A

List of Data Exchanged Pursuant to Section 4.3

(Attachment 1-TOP-005-0 (Electric System Reliability Data)) of Standard TOP-005-0 (Operational Reliability Information) also includes data that may be included in this Exhibit)

The Parties will exchange the following types of data and information: (a) Real-Time and Projected Operating Data; (b) SCADA Data; (c) EMS Models; (d) Operations Planning Data; and (e) Planning Information and Models. The Parties agree to exchange the following information as needed to coordinate reliable operations:

1) Real-time operating information:

- i) Generation status of the units in each Party's Region;
- ii) Transmission line status;
- iii) Real-time loads;
- iv) Scheduled use of reservations;
- v) TLR information, including calculation of Market Flows;
- vi) Redispatch information, including the next most economical generation block to decrement/increment; and
- vii) Real-time constraints.

2) Projected operating information:

- i) Unit commitment/merit order;
- ii) Maintenance schedules;
- iii) Forced outage rates;
- iv) Firm purchase and sales;
- v) Independent power producer information including current operating level, projected operating levels, Scheduled Outage start and end dates;
- vi) The planned and actual operational start-up dates for any permanently added, removed, or significantly altered transmission segments; and
- vii) The planned and actual start-up testing and operational start-up dates for any permanently added, removed, or significantly altered generation units.

3) Exchange of SCADA Data.

- a) The Parties shall exchange requested transmission power flows, measured bus voltages, and breaker equipment statuses of their bulk transmission facilities via ICCP or ISN.
- b) Each Party shall accommodate, as soon as practical, another Party's request for additional ICCP/ISN bulk transmission data points, but in any event, no more than one (1) week after the request has been submitted.
- c) The Parties will comply with all governing confidentiality agreements executed by the Parties relating to ICCP/ISN data.

- d) The Parties shall exchange SCADA data consisting of:
 - i) Status measurements 69 kV and above (breaker statuses) (as available and required to observe for reliability as the respective Parties may determine);
 - ii) Analog measurements 69 kV and above (flows and voltages); (as available and required to observe for reliability as the respective Parties may determine);
 - iii) Generation point measurements, including generator output for each unit in MW and MVARs, as available;
 - iv) Load point measurements, including bus loads, and specific loads at each substation in MW and MVARs, as available;
 - v) Control Area net interchange;
 - vi) Control Area total load;
 - vii) Control Area operating reserves

- e) Identification of other real-time data available through ICCP/ISN.
 - i) **Models.** The Parties will exchange their detailed EMS models once a year in an agreed upon format such as the CIM format, and shall exchange updates of the files as new data becomes available. The annual exchange shall include the ICCP/ISN mapping files, identification of individual bus loads, seasonal equipment ratings, and one-line drawings that shall be used to expedite the model conversion process. The Parties shall also exchange updates that represent the incremental changes that have occurred to the EMS model since the most recent update.

 - ii) **Operations Planning Data.** Upon the written request of a Party, a Party shall provide the information specified to the extent such information is available or can be obtained.
 - (1) **Flowgates.** The Parties shall exchange the following information:
 - (a) Flowgate definitions including seasonal TTC, TRM, CBM, and a & b multipliers;
 - (b) Flowgates to be added on demand;
 - (c) List of Coordinated Flowgates and Reciprocal Coordinated Flowgates;
 - (d) List of Flowgates to recognize when selling point-to-point service (if different than the list of Coordinated Flowgates); and
 - (e) Firm and non-firm AFC for all Flowgates required under Section 4.1.4.1(c) and (d).

- 4) **Transmission Service Reservations.** The Parties shall exchange the following information:

- i) Daily list of all reservations, hourly increment of new reservations;
 - ii) List of reservations to exclude;
 - iii) Reservation and interchange schedules, as required to permit the accurate calculation of TTC and ATC/AFC values;
 - iv) Procedures and practices used to model intra-RTO reservations, reservations on external systems, and reservation netting; and
 - v) List of reservations from OASIS that should not be considered in ATC/AFC calculations.
- 5) **Available Flowgate Capability Data.** Each Party shall meet a minimum periodicity for calculating and making available AFCs to the other Party. The minimum periodicity depends on the service being offered. Each Party shall provide the following AFC data to the other Party:
- i) Hourly for first seven (7) days posted at a minimum, once per hour;
 - ii) Daily for days eight (8) through thirty-one (31), posted at a minimum, once per day; and
 - iii) Monthly for months two (2) through eighteen (18), posted at a minimum, twice per month.
- 6) **Load Forecast.** The Parties shall exchange the following load forecast data and information:
- i) Hourly for next seven (7) days, daily for days eight (8) through thirty-one (31), and monthly for months two (2) through eighteen (18), submitted once a day;
 - ii) Identify the origin of the forecast (e.g., identity of RTO, RC, Control Area, etc.);
 - iii) Indicate whether this forecast includes transmission system losses, and if it does, indicate what the percent losses are;
 - iv) Identify non-conforming loads;
 - v) Indicate how municipal entities, cooperatives, and other entity loads are treated. Indicate whether they are included in the forecast. If so, indicate the total load or net load after removing other entity generation; and
 - vi) Peak load data for each period (e.g., daily, weekly, and monthly) in accordance with NERC policies and procedures. For the next seven (7) day horizon, the Parties shall either supply hourly load forecasts, or they shall

supply daily peak load forecasts with a load profile. All load forecasts will be provided on a Control Area basis by the applicable transmission provider

- 7) **Generator Data.** The Parties shall exchange the following generator data:
 - i) Unit owner, bus location in model;
 - ii) Seasonal ratings, PMIN, PMAX, QMIN, QMAX;
 - iii) Station auxiliaries to extent gross generation has been reported;
 - iv) Regulated bus, target voltage and actual voltage; and
 - v) EFOR.

- 8) **Designated Network Resources.** The Parties shall exchange the following Designated Network Resource data:
 - i) Network Integration Transmission Service Specifications;
 - ii) Identification of generators that serve as Designated Network Resources;
 - iii) Indication of treatment as pseudo tie or dynamic/static schedules;
 - iv) Rules for sharing output between joint owners; and
 - v) Transmission arrangements.

- 9) **Control Area Net Interchange from Reservations and Tags.** The Parties shall exchange the following data concerning Control Area net interchange from reservations and tags:
 - i) Any grandfathered agreements that do not appear in OASIS; and
 - ii) If tags and reservations can not be used to develop Control Area or zone net interchange, then provide hourly unit commitment information for all generators in the Control Area/zone.

- 10) **Dynamic Schedules.** The Parties shall exchange the following data concerning dynamic schedules:
 - i) List of dynamic schedules;
 - ii) Identification of the dynamic schedules are being used to move load into the Control Area or out of the Control Area;
 - iii) Identification of marginal generation zones; and

- iv) Actual amount and future projection of dynamic schedule flows. All dynamic schedule flows and tags will be submitted in accordance with NERC policy and procedures.

11) **Controllable Devices.** The Parties shall exchange the following controllable devices data:

- i) Phase shifters;
- ii) DC lines; and
- iii) Back-to-back AC/DC converters.

12) **Generation and Transmission Scheduled and Forced Outages.** The Parties shall exchange the following data concerning Scheduled Outages of generation and transmission, and forced outages:

- i) Scheduled Outages of generation resources that are planned or forecast, as soon as practicable, including all data specified in Section 5.1.1;
- ii) Scheduled Outages of transmission resources that are planned or forecast, as soon as practicable, including all data specified in Section 5.1.3; and
- iii) Notification of all forced outages of both generation and transmission resources, not to exceed 30 minutes after they are identified.

Cost of Data and Information Exchange. Each Party shall bear its own cost of providing the data and information to the other Parties as required under this Article Four and otherwise under this Agreement.

Confidentiality. The Parties agree that various components of the data exchanged are Confidential Information and that, in addition to the protections of Confidential Information provided under Section 8.13:

- 1) The Party receiving the Confidential Information shall treat the information in the same confidential manner as its governing documents require it treat the confidential information of its own members and market participants.
- 2) The receiving Party shall not release the producing Party's Confidential Information until expiration of the time period controlling the producing Party's disclosure of the same information, as such period is described in the producing Party's governing documents from time to time. As of the Effective Date, this period is six (6) months with respect to bid or pricing data, and seven (7) calendar days for transmission data after the event ends.
- 3) All other prerequisites applicable to the producing Party's release of such Confidential Information have been satisfied as determined by the producing Party.