

**SOUTHWEST POWER POOL  
MODEL DEVELOPMENT ADVISORY GROUP MEETING**

January 18, 2024 9:00 am – 12:00 pm (CST)

Conference Call

## **SUMMARY OF MOTIONS AND ACTION ITEMS**

Action Items:

- **No new actions from this meeting**

Motions:

- **Motion: Jesse Kreutzfeldt motioned to approve the agenda as presented. Jerry Bradshaw seconded the motion. The motion passed unanimously.**
- **John Vara noticed a correction needed to the previous meeting date during the review of the 12/14 meeting minutes. John motioned to approve the December 14 2023, meeting minutes as presented with updates to the meeting date. Jerry Bradshaw seconded the motion. The motion passed.**

**SOUTHWEST POWER POOL  
MODEL DEVELOPMENT ADVISORY GROUP MEETING**

January 18, 2024 9:00 am – 12:00 pm (CST)

Conference Call

**MINUTES**

**AGENDA ITEM 1 – ADMINISTRATIVE ITEMS**

**AGENDA ITEM 1A & 1B – CALL TO ORDER AND ANTITRUST STATEMENT**

MDAG Chair, John Turner, called the meeting to order at 9:03 a.m. (CST) with Quorum. SPP Staff Secretary Proxy, Eric Sullivan, read the anti-trust statement to the group.

## AGENDA ITEM 1C & 1D – ATTENDANCE AND PROXIES

The following members attended or were represented by proxy:

MDAG Member	Present	Proxy	Present	Company
Alex Mucha	Y			Oklahoma Municipal Power Authority
Brianna Haug	Y			Western Area Power Administration, MDAG Vice-Chair
Dustin Betz	Y			Nebraska Public Power District
Jason Shook	Y			GDS Associates
Jerry Bradshaw	Y			City Utilities of Springfield
Jesse Kreutzfeldt	Y			Missouri River Energy Services
Joe Fultz	Y			Grand River Dam Authority
John Turner	Y			Western Farmers Electric Power, MDAG Chair
John Vara	Y			Golden Spread Electric
Liam Stringham	Y			Sunflower Electric Power Corporation
Lottie Jones	Y	Eric Sullivan	Y	Southwest Power Pool, Inc., MDAG Secretary
Preston Blinsky	Y			Basin Electric Power Cooperative
Reené Miranda	Y	Mae Cruz	Y	Southwestern Public Service
Ryan Baysinger	Y			Evergy
Scott Rainbolt	Y			American Electric Power
Scott Schichtl	Y			Arkansas Electric Cooperative Corporation
Steve Hohman	Y	Mike Swan	Y	Omaha Public Power District
Tyler Baxter	Y			Corn Belt Power Cooperative

**Material:** JAN14\_Attach2 - 1c. MDAG Conference Call Attendance-01-18-2024

## AGENDA ITEM 1E – AGENDA REVIEW (**APPROVAL ITEM**)

John Turner, MDAG Chair, asked the group if they had a chance to review the agenda and if the group had any modifications to the agenda.

**Motion: Jesse Kreutzfeldt motioned to approve the agenda as presented. Jerry Bradshaw seconded the motion. The motion passed unanimously.**

**Material:** JAN14\_Attach1- 1e. MDAG Meeting Agenda

## AGENDA ITEM 1F – PREVIOUS DECEMBER 14, 2023 MEETING MINUTES (**APPROVAL ITEM**)

Eric Sullivan asked the group if they had any proposed changes for the previous December 14, 2023, meeting minutes.

**Motion: John Vara noticed a correction needed to the previous meeting date. John motioned to approve the December 14 2023, meeting minutes as presented with updates to the meeting date. Jerry Bradshaw seconded the motion. The motion passed.**

**Material:** JAN14\_Attach3- 1f. December 14, 2023, Meeting Minutes.docx

## AGENDA ITEM 2 – REVIEW OF PAST ACTION ITEMS

Eric Sullivan discussed outstanding issues highlighted in red font. Eric walked the group through updates on action items collected at the previous session and updates for existing in-progress action items.

- Action Item 164 – In Progress – Area 550 – Before taking an MDAG approval vote, SPP Staff, Lottie Jones, will request to add topic to the agenda of an upcoming TWG meeting for further discussion to ensure no other impacts outside of the models.
- Action Item 208 – In Progress – Naming Conventions for Models – SPP Staff, Lottie Jones, to work with Sherri Maxey, TWG Secretary, and Derek Brown, TWG Chair, to add topic to agenda for an upcoming TWG meeting.
- Action Item 210 – Completed – RR452 Request
- Action Item 211 – In Progress – Attachment AJ/FERC Order 881 Language – This item has been moved to the MDAG Focus Group to discuss further prior to bringing it to TWG for MDAG Manual Language approval.

## AGENDA ITEM 3 – AREA 550 DISCUSSION (**APPROVAL ITEM**)

WAPA staff, Brianna Haug, led the discussion on the implementation of area 550. The feedback was mixed. Some was in support, and there were others voicing concerns similar to the ones in previous meetings about this initiative. The recommendation is to make the usage of area 550 optional. SPP Staff asked if the topic had been passed by TWG due to the models being impacted. Due to the potential impacts, there were no objections from group with removing this item from the agenda as an approval item and allowing Brianna to present to TWG. The MDAG approval on this item is being delayed until feedback is received from TWG.

**MOTION: No Vote Taken...Delayed until after TWG discussion**

## AGENDA ITEM 4 – MDAG ROSTER UPDATE

MDAG Chair, John Turner announced the resignation of Steve Hohman, OPPD representative, from the MDAG Roster. A replacement will be needed. John encouraged those interested to work with their MOPC representatives. Steve was thanked for his years of service to MDAG.

## AGENDA ITEM 5 – NMM UPDATE

Siemens Staff, Martin Mangold, presented an update and overview of the new NMM (Network Model Manager) application. This will eventually be a replacement of MOD (Model on Demand). This new application will be changing the user interface and experience to be more user friendly. It will also feature in-app and email notifications. Martin gave a demo of the

application that is currently in the development phase. The group is excited to start using the new system as soon as possible in parallel with the existing MOD application. The existing MOD File Builder will move to be available inside the NMM application. One future suggestion was to make NMM be able to interact with EDST to eliminate the need for duplicate data. SPP Staff estimated that the new application would be rolled out into Production in the next year or so.

## **AGENDA ITEM 6 – 2024 SERIES MDAG MODEL BUILD/APPLICATION UPDATES**

### **AGENDA ITEM 6A – POWERFLOW**

SPP staff, Hugh Benfer, updated the group on the 2024 Series MDAG/ITP Powerflow model build. Pass 5 models will be posted on January 26. Hugh indicated that pass 5 was the last pass to pull data from both MOD and EDST. Any data added going forward would be for the next model build. For the next pass, the models for MDAG and Final ITP will be built in parallel. Any data submitted should be via IDEVs. MOD should also be updated for the next build. Hugh also gave an update on the patch installation that was to fix an issue with ratings in MOD. The patch has been received and installed.

Joe Fultz, GRDA staff, asked a question regarding how to handle retired generators. Per the MDAG manual, when modeling generation that is not dispatched and/or is non-operational that can be put back into service and has not yet gone through the Attachment AB process for retirement (mothballed) and future retired units, the unit will be modeled offline (in-service status = 0. The capability amounts for PMAX, PMIN, QMAX, and QMIN should not be changed until the unit is fully decommissioned) similar to units that are not dispatched in the particular seasonal model.

Reene' Miranda, SPS staff, had a question about the need of the MDAG models. SPP Staff replied that they were for planning purposes for MMWG and Dynamics. The base case and dispatch requirements of the ITP cases are reasons the MDAG models are used for Dynamics.

### **AGENDA ITEM 6B – SHORT CIRCUIT**

SPP staff, Eric Sullivan, updated the group on the 2024 Series MDAG Short Circuit model build.

### **AGENDA ITEM 6C – MOD-033**

SPP staff, Eric Sullivan updated the group on the 2024 Series MDAG MOD-033/WWE model build.

### **AGENDA ITEM 6D – DYNAMICS**

SPP staff, Theo Brown, updated the group on the 2024 Series MDAG Dynamic Model Build Update with the current tasks and key reminders.

## AGENDA ITEM 7 – DISCUSSION OF FUTURE MEETINGS

John Turner, MDAG Chair, updated the group on upcoming meetings.

- a. RAD TF: January 24, 2024 (1:00 PM – 3:00 PM)
- b. MDAG Focus Group: January 23, 2024 (1:00 PM – 3:00 PM)
  - i. Facilitate technical discussions
  - ii. MDAG changes (manual, schedule, etc) must be discussed in FG before being brought to MDAG
- c. TWG: January 30, 2024 - January 31, 2024 (9:00 AM begins)
- d. MDAG: February 15, 2024 (9:00 AM – 12:00 PM)

MDAG encourages you to check out the spp.org calendar for additional information on technical topics discussed in other working groups. SPP also offers stakeholder trainings [found here](#)

## AGENDA ITEM 8 – SUMMARY OF ACTION ITEMS

John Turner, MDAG Chair, and Eric Sullivan, Staff Secretary Proxy, indicated no new action items from this meeting.

## AGENDA ITEM 12 – ADJOURN

John Turner, MDAG Chair, adjourned the meeting at 11:02 a.m. (CST)

Respectfully Submitted,

Lottie Jones  
Secretary

Eric Sullivan  
Secretary Assistant

Attachments

JAN14\_Attach1- 1e. MDAG Meeting Agenda.docx

JAN14\_Attach2 - 1c. MDAG Conference Call Attendance-01-18-2024

JAN14\_Attach3- 1f. December 14, 2023, Meeting Minutes.docx



**SOUTHWEST POWER POOL  
MODEL DEVELOPMENT ADVISORY GROUP MEETING**

February 15, 2024 9:00 am – 12:00 pm (CST)

Conference Call

## SUMMARY OF MOTIONS AND ACTION ITEMS

Action Items:

- **Action Item:** If a TO does not have the seasonal ratings completed and identified by the approval date of the 2025 models, and later updates the ratings in the models to the correct seasonal rating; will this later change to the ratings now be considered a Material Modification moving the facility into a material modification type study?
- **Action Item:** As TOs develop their processes to comply with FERC 881 seasonal ratings for planning models, how is SPP going to address any reduction to facility ratings that were issued an NTC, where the new rating is below the rating in the NTC, because of FERC 881? Will SPP issue a new NTC, to comply with the rating in the original NTC value? The other option is that SPP complete a full study and reset NTC rating values if there are no impacts to the facility with the new FERC 881 rating.
- **Action Item:** What is the intent of item 6 in the manual language? Is it intended to apply to the tertiary line of a three-winding transformer. – Check with Chris Colson regarding the language.
- **Action Item:** Is TWG requiring seasonal ratings for long-term planning? Is there a disconnect between MDAG and TWG? Does this language need to be reviewed by TWG? Can some additional time be added to the schedule for these updates and the information that is required to be entered into MOD? – Check this language against what has been presented to TWG.
- **Action Item:** Review the inter-area transfer tab to ensure that the data is in there properly.
- **Action item:** Review the DC profile and system intact data project for GRDA to ensure that it is incorporated. Notify AQ staff as well regarding AQ project notification.

Motions:

- **Motion: Jesse Kreutzfeldt motioned to approve the agenda as presented. John Vara seconded the motion. The motion passed unanimously.**
- **Motion: Jerry Bradshaw motioned to approve the January 18 2024, meeting minutes as presented. Joe Fultz seconded the motion. The motion passed.**

- **Motion: There is no motion to approve the updated MDAG Manual Language today as more discussion is required in the MDAG Focus Group and TWG.**
- **Motion: Jerry Bradshaw motioned to approve the MDAG open seats. Jesse Kreutzfeldt seconded the motion. The motion passed.**

**SOUTHWEST POWER POOL  
MODEL DEVELOPMENT ADVISORY GROUP MEETING**

February 15, 2024 9:00 am – 12:00 pm (CST)

Conference Call

## **MINUTES**

### **AGENDA ITEM 1 – ADMINISTRATIVE ITEMS**

#### **AGENDA ITEM 1A & 1B – CALL TO ORDER AND ANTITRUST STATEMENT**

MDAG Chair, John Turner, called the meeting to order at 9:02 a.m. (CST) with Quorum. SPP Staff Secretary, Lottie Jones, read the anti-trust statement to the group.

## AGENDA ITEM 1C & 1D – ATTENDANCE AND PROXIES

The following members attended or were represented by proxy:

MDAG Member	Present	Proxy	Present	Company
Alex Mucha	Y			Oklahoma Municipal Power Authority
Brianna Haug	Y			Western Area Power Administration, MDAG Vice-Chair
Dustin Betz	Y			Nebraska Public Power District
Jason Shook	N	Anteneh Workneh	Y	GDS Associates
Jerry Bradshaw	Y			City Utilities of Springfield
Jesse Kreuzfeldt	Y			Missouri River Energy Services
Joe Fultz	Y			Grand River Dam Authority
John Turner	Y			Western Farmers Electric Power, MDAG Chair
John Vara	Y	David Mendoza	Y	Golden Spread Electric
Liam Stringham	Y			Sunflower Electric Power Corporation
Lottie Jones	Y			Southwest Power Pool, Inc., MDAG Secretary
Preston Blinsky	Y			Basin Electric Power Cooperative
Reené Miranda	Y			Southwestern Public Service
Ryan Baysinger	Y			Evergy
Scott Rainbolt	N	David Zhong	Y	American Electric Power
Scott Schichtl	Y			Arkansas Electric Cooperative Corporation
Tyler Baxter	N	Neil Smith	Y	Corn Belt Power Cooperative

**Material:** FEB15\_Attach2 - 1c. MDAG Conference Call Attendance-02-15-2024

## AGENDA ITEM 1E – AGENDA REVIEW (**APPROVAL ITEM**)

John Turner, MDAG Chair, asked the group if they had a chance to review the agenda and if the group had any modifications to the agenda.

**Motion: Jesse Kreutzfeldt motioned to approve the agenda as presented. John Vara seconded the motion. The motion passed unanimously.**

**Material:** FEB15\_Attach1- 1e. MDAG Meeting Agenda

## AGENDA ITEM 1F – PREVIOUS JANUARY 18, 2024 MEETING MINUTES (**APPROVAL ITEM**)

Lottie Jones asked the group if they had any proposed changes for the previous January 18, 2024, meeting minutes.

**Motion: Jerry Bradshaw motioned to approve the January 18 2024, meeting minutes as presented. Joe Fultz seconded the motion. The motion passed.**

**Material:** FEB15\_Attach3- 1f. January 18, 2024, Meeting Minutes.docx

## AGENDA ITEM 2 – REVIEW OF PAST ACTION ITEMS

Lottie Jones discussed outstanding issues highlighted in red font. Lottie walked the group through updates on action items collected at the previous session and updates for existing in-progress action items.

- Action Item 164 – In Progress – Area 550 – There is an in the agenda today for this topic.
- Action Item 211 – In Progress – Attachment AJ/FERC Order 881 Language – There is an approval item in today's agenda for this item.

## AGENDA ITEM 3 – MDAG MANUAL LANGUAGE (**APPROVAL ITEM**)

SPP staff, Lottie Jones, presented the updated MDAG manual language to the group regarding FERC Order 881 and Attachment AJ.

John Turner summarized the updates from Chris Colson (WAPA) and noted the affect the MDAG members.

Michael Swan asked if the manual language change will need to be done by a certain time. John commented that the idea is to have the language updated prior to the 2025 MDAG model build.

William Holden mentioned that the Attachment AJ language has been filed by FERC and accepted; however, there is no draft copy out there at this time. For the operational horizon (10 days and closer), the Attachment AJ language is there to ensure that the ratings are updated and correct. The effective date of Attachment AJ is July 2025. If an alternate rating is implemented at a facility, this must be written and provided to SPP.

Reene Miranda voiced his concerns regarding providing the requested seasonal ratings by July 2025. If the rating changes are significant enough, could it be considered a material modification and have to go through the material modification process? When is this data to be provided?

John commented that if the language is approved, the models could be approved conditionally so that if there are members that do not meet the requirements the first year the models will still be approved until the following model build cycle.

Michael addressed similar concerns to Reene and submitted the below action item.

**Action Item:** If a TO does not have the seasonal ratings completed and identified by the approval date of the 2025 models, and later updates the ratings in the models to the correct seasonal rating; will this later change to the ratings now be considered a Material Modification moving the facility into a material modification type study?

John asked if the ratings could be submitted up until July 1<sup>st</sup> 2025 or would they need to be entered for the MDAG 2025 model build (July 2024).

Lottie commented that we could address the updates with post-processing idevs in the March 2025 time frame.

This comment addressed Michael and John's concerns.

Ryan Baysinger asked if bullet point 6 is intended to apply to the tertiary line of a three-winding transformer. John mentioned that this would need to be addressed by Chris as he assisted with the manual language.

**Action Item:** What is the intent of item 6 in the manual language? Is it intended to apply to the tertiary line of a three-winding transformer. – Check with Chris Colson regarding the language.

Dustin Betz commented that he understood the language to have enough flexibility to adjust the seasonal line ratings.

**Action Item:** As TOs develop their processes to comply with FERC 881 seasonal ratings for planning models, how is SPP going to address any reduction to facility ratings that were issued an NTC, where the new rating is below the rating in the NTC, because of FERC 881? Will SPP issue a new NTC, to comply with the rating in the original NTC value? The other option is that SPP complete a full study and reset NTC rating values if there are no impacts to the facility with the new FERC 881 rating.

**MOTION: There is no motion to approve the updated MDAG Manual Language today as more discussion is required in the MDAG Focus Group and TWG.**

#### AGENDA ITEM 4 – MDAG OPEN SEATS (APPROVAL ITEM)

MDAG Chair, John Turner, requested a motion to open up two additional seats for MDAG membership so that this can be presented to MOPC.

**MOTION: Jerry Bradshaw motioned to approve the MDAG open seats. Jesse Kreutzfeldt seconded the motion. The motion passed.**

#### AGENDA ITEM 5 – MDAG 2023 EFFECTIVENESS SURVEY

MDAG Chair, John Turner, presented the MDAG 2023 Effectiveness Survey to the group including the averages for each area as well as the comments.

Brianna Haug commented that the meeting minutes are to cover the broad strokes of the meeting topics and discussion and are not intended to capture every comment.

#### AGENDA ITEM 6 – AREA 550 DISCUSSION

## AGENDA ITEM 6A – TWG REVIEW

## AGENDA ITEM 6B – OPEN MDAG DISCUSSION

WAPA staff, Brianna Haug, updated the group on the Area 550 discussion. She mentioned that she has received no comments and is currently looking to present the topic for approval during the March MDAG meeting.

What are the group's thoughts on this being an approval item at the next MDAG meeting?

Lottie Jones mentioned that SPP staff is comfortable with the language and John Turner mentioned that he is comfortable with the language as well as it is currently optional.

Brianna is going to bring it to the next MDAG meeting for approval.

## AGENDA ITEM 7 – 2024 SERIES MODEL BUILD/APPLICATION UPDATES

### AGENDA ITEM 7A – POWERFLOW

SPP staff, Lottie Jones, updated the group on the 2024 series MDAG Powerflow model build.

Lottie discussed an issue with MOD that led to bus names reverting back to old bus names and creating duplicate bus numbers. This issue will be resolved for the next model build pass.

Brianna asked if idev updates can still be applied to the ITP BR models. Hugh Benfer commented that yes they can still be applied to the ITP BR models for the next pass.

Joe Fultz mentioned that they have submitted a project for a capacitor bank upgrade but it was not applied to the last powerflow model build. This is for the Farmland cap bank. Lottie mentioned that this project has been identified and applied to the latest powerflow model build.

Reene Miranda indicated that the inter-area transactions is no longer captured in the planning models. The information comes from the EDST firm transfers data and would be added to the Inter-area Transfer tab of each seasonal model, where the sum of the inter-area transfers would be the interchange value capture in the Area Tab of the power flow models. Reene indicated it is important information in trying to validate TO area load against their generation + transfers in areas with one slack bus and multiple TOs. Lottie mentioned that the transactions are still being captured though they are not posted during the ITP BR model build. Lottie indicated discussion outside the meeting would take place.

**Action Item:** Review the inter-area transfer tab to ensure that the data is in there properly.

Joe Fultz mentioned an AQ load addition that was put into the P5 ITP BR powerflow models. Is there an issues where MOD would read ahead of the update? Hugh mentioned that he will reach out to transmission services to see how this data is added for taps/mutual lines.

David Zhong will be sending an email with his question.

Eddie spoke to the group regarding the MOD issues as well as the inter-area data. Reene mentioned that in the past they used to include the inter-area transfers so that they could get their slack bus within limits. Joe mentioned that it may be that this data is not included in the ITP BR models though they may be included in the MDAG models due to dispatching.

Eddie commented that we can review how this data is incorporated into the models and bring it back to the group. Joe commented that it may be possible to include the transactions even with an economic dispatch. This can be reviewed further as well. Hugh mentioned that everything is netted into one value. This will be purely economic.

Reene asked if any violations would be left into the models because of the ECDI (economic dispatch). Is SPP including these violations for the MMWG model build? Lottie mentioned that these would be corrected prior to the MMWG model build. Is there correlation between MDAG and Base Reliability models? Hugh mentioned that they are 99% similar topology wise (minus the system intact MOD file). In ITP BR models you cannot dispatch exploratory topology or generation to ITP BR models but it can be dispatched in MDAG models. The MDAG and ITP cases are very similar otherwise. ITP is looking at primarily firm service and upcoming projects. Data for the ITP BR models is being pulled from EDST and all of the firm transaction data is being added into the models. This is one number as opposed to the individual transfers.

Peter Jones (via chat) - Is there documentation on how the Area Interchange (not the inter-area transfer) is calculated? Hugh mentioned that this can be found in the MDAG manual (see comment from Lottie).

Lottie Jones (via chat) - System Intact Alteration projects are the main difference. "Changes to the transmission model necessary to correct basecase system intact voltage (e.g., to conform to MMWG voltage criteria), thermal criteria violations, or other basecase condition modifications (e.g., addition of an exploratory generating unit which provided resource for shortfall)."

Lottie mentioned that the difference between MDAG and ITP related to the inter-area transfer tab relates to how the data is incorporated into the models. Reene asked if these could be added to the ITP models and Lottie mentioned that she can check into this for a future update.

**Action item:** Review the DC profile and system intact data project for GRDA to ensure that it is incorporated. Notify AQ staff as well regarding AQ project notification.

## AGENDA ITEM 6B – SHORT CIRCUIT

SPP staff, Eric Sullivan, updated the group on the 2024 Series MDAG Short Circuit model build.

Marc Moor mentioned that during review of the short circuit models it was noted that some of the transformers had LPC settings from powerflow. How are taps set in the short circuit model?



Marc Moor commented that there were some strange issues at the seams with the Ameren model. This can lead to duplications and is something to be mindful of in the next pass.

### **AGENDA ITEM 6C – MOD-033**

SPP staff, Eric Sullivan, updated the group on the 2024 Series MDAG MOD-033/WWE model build.

### **AGENDA ITEM 6D – DYNAMICS**

SPP staff, Zach Sabey, updated the group on the 2024 Series MDAG Dynamic Model Build Update with the current tasks and key reminders.

Marc Moor commented to review gen type J data in the models as there have been issues noted around this type of data. This data may have to be retired in the future or be noted as unacceptable. Zach commented that there is a lot of discussion with WECC to retire the gen type J model. Future updates will be given during the MDAG Focus Group meeting.

Reene commented his interest in the issues with the gen type J model.

### **AGENDA ITEM 8 – DISCUSSION OF FUTURE MEETINGS**

John Turner, MDAG Chair, updated the group on upcoming meetings.

- a. RAD TF: February 21, 2024 (1:00 PM – 3:00 PM)
- b. MDAG Focus Group: February 20, 2024 (1:00 PM – 3:00 PM)
  - i. Facilitate technical discussions
  - ii. MDAG changes (manual, schedule, etc) must be discussed in FG before being brought to MDAG
- c. TWG: February 27, 2024 - February 28, 2024 (9:00 AM begins)
- d. MDAG: March 21, 2024 (9:00 AM – 12:00 PM)

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### **AGENDA ITEM 9 – SUMMARY OF ACTION ITEMS**

John Turner, MDAG Chair, and Lottie Jones, Staff Secretary, indicated the following new action item from this meeting.

- **Action Item:** If a TO does not have the seasonal ratings completed and identified by the approval date of the 2025 models, and later updates the ratings in the models to the correct seasonal rating; will this later change to the ratings now be considered a Material Modification moving the facility into a material modification type study?
- **Action Item:** As TOs develop their processes to comply with FERC 881 seasonal ratings for planning models, how is SPP going to address any reduction to facility ratings that were issued an NTC, where the new rating is below the rating in the NTC, because of FERC 881? Will SPP issue a new NTC, to comply with the rating in the original NTC value? The other option is that SPP complete a full study and reset NTC rating values if there are no impacts to the facility with the new FERC 881 rating.
- **Action Item:** What is the intent of item 6 in the manual language? Is it intended to apply to the tertiary line of a three-winding transformer. – Check with Chris Colson regarding the language.
- **Action Item:** Is TWG requiring seasonal ratings for long-term planning? Is there a disconnect between MDAG and TWG? Does this language need to be reviewed by TWG? Can some additional time be added to the schedule for these updates and the information that is required to be entered into MOD? – Check this language against what has been presented to TWG.
- **Action Item:** Review the inter-area transfer tab to ensure that the data is in there properly.
- **Action item:** Review the DC profile and system intact data project for GRDA to ensure that it is incorporated. Notify AQ staff as well regarding AQ project notification.

## AGENDA ITEM 12 – ADJOURN

John Turner, MDAG Chair, adjourned the meeting at 11:10 a.m. (CST)

Respectfully Submitted,

Lottie Jones  
Secretary

Eric Sullivan  
Secretary Assistant

## Attachments

FEB15\_Attach1- 1e. MDAG Meeting Agenda.docx

FEB15\_Attach2 - 1c. MDAG Conference Call Attendance-02-15-2024

FEB15\_Attach3- 1f. January 18, 2024, Meeting Minutes.docx

**SOUTHWEST POWER POOL, INC.**

**MODEL DEVELOPMENT ADVISORY GROUP MEETING**

**February 15, 2024**

**Conference Call**

**9:00 a.m. – 12:00 p.m. (CST)**

**AGENDA**

1. Administrative Items.....John Turner (10 mins)
  - a. Call to Order
  - b. Antitrust Statement
  - c. Attendance
  - d. Proxies
  - e. Agenda Review (**Approval Item**)
    - i. Acknowledgment for the posting of meeting materials
    - ii. *Agenda items may be taken out of order and could conclude earlier or later than estimated time.*
  - f. Previous January Meeting Minutes (**Approval Item**)
2. Review of Past Action Items ..... Lottie Jones (5 mins)
3. MDAG Manual Language (**Approval Item**) .....Lottie Jones (15 mins)
4. MDAG Open Seats (**Approval Item**).....John Turner (15 mins)
5. MDAG 2023 Effectiveness Survey.....John Turner (60 mins)
6. Area 550 Discussion..... Brianna Haug (30 mins)
  - a. TWG review
  - b. Open MDAG discussion
7. 2024 series Model Build/Application Updates
  - a. Powerflow .....Lottie Jones (15 mins)
  - b. Short Circuit .....Eric Sullivan (15 mins)
  - c. MOD-033 .....Eric Sullivan/Ben Mitchell (5 mins)
  - d. Dynamics..... Zach Sabey/Theo Brown (5 mins)
8. Discussion of Future Meetings..... John Turner (5 mins)

*Antitrust: SPP strictly prohibits use of participation in SPP activities as a forum for engaging in practices or communications that violate the antitrust laws. Please avoid discussion of topics or behavior that would result in anti-competitive behavior, including but not limited to, agreements between or among competitors regarding prices, bid and offer practices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that might unreasonably restrain competition.*



All meeting times are represented in the central time zone. Please register for all meetings via spp.org

- a. RAD TF: February 21, 2024 (1:00 PM – 3:00 PM)
- b. MDAG Focus Group: February 20, 2024 (1:00 PM – 3:00 PM)
  - i. Facilitate technical discussions
  - ii. MDAG changes (manual, schedule, etc) must be discussed in FG before being brought to MDAG
- c. TWG: February 27, 2024 - January 31, 2024 (9:00 AM begins)
- d. MDAG: March 21, 2024 (9:00 AM – 12:00 PM)

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- 9. Summary of Action Items..... John Turner (5 mins)
  - a. Agenda Review – additional comments request
- 10. Adjourn..... All

\* The approval items denoted with "\*" shall be jointly developed by PC, TP, and MDAG

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## Assessment 1

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**3. Enter Assessmei**

## Spreadsheet

**Assessment process located on Confluence before completing and submitting your spreadsheet:** [sppcorp.org/display/WG/MOPC#expand-AnnualAssessmentWGsAGs](https://sppcorp.org/display/WG/MOPC#expand-AnnualAssessmentWGsAGs)

**Pay attention to spreadsheet's formatting! The assessments must be the same across all groups.** Be careful if you copy/paste throughout the spreadsheet. You need to "drag" any formulas to new rows and may need to adjust the cell size. Contact El or Kaye McCarty for assistance.

**Enter representative's name in A1 and group acronym in bottom 2 tabs.**

### Representative information

A. Enter the names of your rostered representatives in column A, beginning with your name (staff secretary) in row 7.

**Use LAST NAME, FIRST NAME**

B. Enter the company name for each of the rostered representatives in column B, beginning with "SPP" in row 7.

**Use company names EXACTLY AS LISTED ON SPP.ORG:** <https://www.spp.org/about-us/members-market-participants/>

C. For standing proxies, list the proxy's name and company and the company they're representing.  
*Example: Starnes, Heather (Healy Law Firm) proxy for Grotzinger, John | Missouri Joint Electric*

### Meeting details

A. Enter your meeting dates beginning in column C, row 1 and continue across the worksheet until all meeting dates are entered

B. Enter the actual duration for each meeting beginning in column c, row 2. Round to the nearest .5 hours.

C. Enter the actual number of votes taken per meeting beginning in column c, row 3. **Do not count** administrative votes such as votes to approve the agenda or adjourn the meeting. When counting consent votes, count one vote for each item under the consent topic. Do not count a consent vote as 1 if it includes multiple items.

D. Enter the total number of attendees for each meeting beginning in column c, row 4

E. Enter the meeting format for each meeting beginning in column c, row 5

### Attendance at each meeting per representative

A. For yourself and each member note how the individual attended the meeting using the drop down for the cell. Options are virtual, in-person, proxy, absent or non-member. Non-member is to be used for those who were members for only part of the assessment period. If you have a member that joined or left the group during the assessment period, utilize the non-member option for all meetings in which they were not considered a rostered member of the group.

## Survey worksheet



**Demographic data**

- A. Indicate Yes if the member is current and No if they are no longer a part of the group
- B. Enter the type of member for each representative in column D
- C. Enter the sector type for each representative in column E
- D. If a representative leaves mid assessment period add a red asterick in front of their name

**to indicate the status of your scope review in L8**

**nt Period in A2**

## **adsheet!**

Do not copy, paste or insert rows because  
it will change the row numbers in the formulas. Please

## Model Development Advisory Group

	Meeting Date(s)		
	1/18/2024	2/15/2024	
	2	2	
Meeting Length (hrs)			
Number of Votes Taken	2	3	
Overall Attendance	64	58	
Meeting Format	Virtual	Virtual	
Name	Company	1/18/2024	2/15/2024
Lottie Jones (Staff Secretary)	SPP	Virtual	Virtual
Eric Sullivan (Asst. Staff Secretary)	SPP	Virtual	Virtual
John Turner (Chair)	Western Farmers Electric Power	Virtual	Virtual
Brianna Haug (Vice Chair)	Western Area Power Administration	Virtual	Virtual
Alex Mucha	Oklahoma Municipal Power Authority	Virtual	Virtual
Dustin Betz	Nebraska Public Power District	Virtual	Virtual
Jason Shook	GDS Associates	Virtual	Absent
Jerry Bradshaw	City Utilities of Springfield	Virtual	Virtual
Jesse Kreuzfeldt	Missouri River Energy Services	Virtual	Virtual
Joe Fultz	Grand River Dam Authority	Virtual	Virtual
John Vara	Golden Spread Electric	Virtual	Virtual
Liam Stringham	Sunflower Electric Power Corporation	Virtual	Virtual
Preston Blinsky	Basin Electric Power Cooperative	Virtual	Virtual
Reen Miranda	Southwestern Public Service	Virtual	Virtual
Ryan Baysinger	Eergy	Virtual	Virtual
Scott Rainbolt	American Electric Power	Virtual	Absent
Scott Schmitt	Arkansas Electric Cooperative Corporation	Virtual	Virtual
Steve Hohman	Omaha Public Power District	Virtual	Non-Member
Tyler Baxter	Corn Belt Power Cooperative	Virtual	Absent
Guest Name	Company	1/18/2024	2/15/2024
Adam Mummert	Burns & McDonnell	Virtual	
Adam Nowli	Oklahoma Gas and Electric Company	Virtual	
Adam Schieffer	OPPD	Virtual	
Afshin Salehian	SPP		
Adam Schieffer	OPPD		
Ala Wadi	Liberty Utilities	Virtual	Virtual
Amine Chenaf	DNV		
Andrew Berg	Missouri River Energy Services		
Andrew Howard	Lincoln Electric System	Virtual	
Angeliki Dimopulos	ITC		
Antoni Warkneh GDS	GDS		Virtual
Antonio Barrera	Southwestern Public Service	Virtual	Virtual
Armin Sehic	Nebraska Municipal Power Pool		Virtual
Aster Amahatston	Nebraska Municipal Power Pool		
Ben Hammer	WAPA		
Becca McCann	SPP		
Ben Mitchell	SPP		
Blake Poole	Eergy		
Bobby Gray	Liberty Utilities	Virtual	
Brandon Heutschel	SPP		
Brenda Harris	ODY		
Brian Johnson	AEP		
Brooke Keene	SPP		
Bruce Doll	Nebraska Municipal Power Pool		
Calvin Coates	Kansas Power Pool		Virtual
Casey Cathey	SPP		
Cassandra Stuber	AEP	Virtual	
Chan Lee	Savion	Virtual	
Charles Costello	Siemens		
Cho Wang	American Electric Power	Virtual	
Chris Colson	Western Area Power Administration		
Chris Davis	SPP		
Chris Gidden	Tri State		
Chris Rich	Oklahoma Gas and Electric Company	Virtual	
Clarence Campbell	SPS		
Claire Vigeesaa	Burns & McDonnell		
Conner Sweet	City Utilities of Springfield	Virtual	Virtual
Curtis Miller	Western Farmers Electric Power		
Dale Reinhold	Hastings Utilities		
Damien Burbage	AECI		
Danielle Borg	Sunflower Electric Power Corporation	Virtual	Virtual
Danielle Lorenz	SPP	Virtual	
Darian Richards	SPP	Virtual	Virtual
David Bromberg	Pearl Street Technologies		
David Duhart	SPP	Virtual	
David Mendoza	Grand River Dam Authority	Virtual	Virtual
David Zhong	American Electric Power	Virtual	Virtual
Dee Edmondson	SPP	Virtual	Virtual
Derek Brown	Eergy		
Devon Pehrson	National Grid Renewables		
Diego Toledo	Grand River Dam Authority	Virtual	Virtual
Douglas Bowman	SPP		
Dona Parks	Grand River Dam Authority	Virtual	Virtual
Donald Hargrove	Oklahoma Gas and Electric Company		
Dustin Mooehr	Liberty Utilities		
Dylan Fate	Tri State		
Dylan Haas	Eergy	Virtual	Virtual
Ebrahim Rezaei	American Electric Power		
Eddie Watson	SPP	Virtual	Virtual
Edin Terzic	Lincoln Electric System		
El Nyambegera	Sunflower Electric Power Corporation		
Elijah Salinas	LES		Virtual
Ellen Cook	SPP		
Eric Jones	Omaha Public Power District		
Erin Cathey	SPP		
Erik Voice	Salem Electric		
Estevan Padilla	SPP		
Frank Favella	Southwestern Public Service		
Garrick Nelson	Western Area Power Administration		
Gary Berger	Oklahoma Gas and Electric Company		
Gavin Novotny	Eergy		
Glen Halley	City Utilities of Springfield		
Grace Bouziden	Oklahoma Gas and Electric Company		
Hannah Mason	Light Source BP		
Hannet Walsh	Orsted		
Hugh Benfer	SPP	Virtual	Virtual
Humberto Branco	Savion	Virtual	
James Okenfuss	Eergy		
Jamie Spikes	SPP	Virtual	Virtual
Jason Henke	Nebraska Public Power District		
Jason Mazigian	Basin Electric Power Cooperative		Virtual
Jeff Knottek	City Utilities of Springfield		
Jeff McDiarmid	SPP		
Jeff Piew	NexEra		
Jeffrey Taylor	ITC		
Jens Boemer	EPRI		
Jerad Ethridge	Oklahoma Gas and Electric Company		
Jeremy Severson	Basin Electric Power Cooperative		
Joe Williams	Western Farmers Electric Power		
Joel Huber	Basin Electric Power Cooperative		
Joey Schrepel	Basin Electric Power Cooperative		
John Boshears	City Utilities of Springfield		
John Mayhan	Omaha Public Power District		
John Varnell	Tenaska		
John Wilson	Southern Current LLC		
Jon Fidrych	Tri State		
Jon Langford	Orsted		
Jonah Montgomery	Eergy		
Jonathan Aus	East River		
Jordan Skillern	Western Farmers Electric Power	Virtual	Virtual
Jose Cordova	EPRI		
Josh Hesselein	Arkansas Electric Cooperative Corporation	Virtual	Virtual
Joshua Pilgrim	SPP		
Josie Daggett	WAPA		
Juliano Freitas	SPP		
Justin Helt	1890 and Company		
Kadeem Brown	AEP		
Kalun Kelley	WFEC		
Kelsey Allen	SPP		
Kim Grogan	Eergy		
Kristie Brown	SPP	Virtual	Virtual
Kristen Darden	SPP		
Larry Brusseau	Corn Belt Power Cooperative		
Liz Gephardt	SPP		
Logan Janssen	East River		
Logan Peterson	Minikota		
Luke Zahner	Kepeco		
Mae Cruz	Southwestern Public Service	Virtual	
Marc Moor	Eergy	Virtual	Virtual
Margaret Kristian	National Grid Renewables		
Martin Green	American Electric Power		
Martin Mangold	Siemens	Virtual	
Mason Favazza	SPP		
Matthew Alvarado	IUB		
McKady Kellam	Eergy		
Miah Archambault	Enel		
Michael Bowman	City Utilities of Springfield		
Michael Ray	SPP		
Michael Ward	Siemens	Virtual	
Mike Swan	Omaha Public Power District	Virtual	Virtual
Moses Rotich	Gridliance		
Mostafa Sedighzadeh	SPP		
Nathan Davis	Liberty Utilities	Virtual	Virtual
Nathan McNeil	Midwest Energy		
Nicholas Hoelteman	Eergy		
Nicole Hicks	WAPA		
Nitin Kushwaha	National Grid Renewables		
Neeya Toleman	NexEra		
Nell Smith	Corn Belt Power Cooperative		Virtual
Nolan Fertig	SPP		
Pallab Datta	Eergy	Virtual	
Paul Vokk	Omaha Public Power District		
Peter Jones	Savion		Virtual
Phil Westby	BEPC		
Prajakta Pawar	Quanta Technology		
Rakib Rahman	Eergy		
Ransome Egunjobi	Enel		
Richard Miner	Liberty Utilities		
Ryan Benton	Oklahoma Gas and Electric Company		Virtual
Ryan Schmitt	NMPP Energy	Virtual	
Scott Holland	SWPA		Virtual
Scott Jordan	SPP		
Scott Mijm	Southwestern Power Administration	Virtual	Virtual
Seth Cochran	DC Energy		
Shalini Gupta	Apex Clean Energy		
Shannon Mickens	SPP		
Shawn Gell	Kepeco		
Shawna Satterwhite	Oklahoma Gas and Electric Company		
Sheri Maxey	SPP		
Shilpi Sunil Kumar	AES	Virtual	Virtual
Shodhan Patel	Constellation	Virtual	
Spencer Simpson	1890 and Co		
Steve Hardebeck	Oklahoma Gas and Electric Company		
Steve Purdy	SPP		
Steven Park	Sunflower Electric Power Corporation		
Sunny Raheem	SPP		
Tanner New	Sunflower Electric Power Corporation	Virtual	Virtual

Thomas Burns  
Theo Brown  
Timothy Sell  
Todd Chwalkowski  
Tom Belshe  
Tom Mayhan  
Tony Green  
Walt Shumate  
William Holden  
Xiaoyu Wang  
Yasmin Sakalla  
Ying Yang  
Zach Andera  
Zach Sabey

SPP  
SPP  
ITS  
EDF  
Energ  
Omaha Public Power District  
SPP  
Shumate & Associates  
SPP  
Enel  
Enel  
Duke Energy  
Burns & McDonnell  
SPP

Virtual Virtual  
Virtual Virtual  
Virtual Virtual

Virtual Virtual

Virtual Virtual

# Model Development Advisory Group

August 2023 - August 2024

Name	Company	Is Current Member?	Member Type	Sector	Present	Proxy	Absent	Percent Present
Alex Mucha	Oklahoma Municipal Power Authority	Yes			2	0	0	100%
Brianna Haug (Vice Chair)	Western Area Power Administration	Yes			2	0	0	100%
Dustin Betz	Nebraska Public Power District	Yes			2	0	0	100%
Jason Shook	GDS Associates	Yes			2	0	0	100%
Jerry Bradshaw	City Utilities of Springfield	Yes			2	0	0	100%
Jesse Kreutzfeldt	Missouri River Energy Services	Yes			1	0	1	50%
Joe Fultz	Grand River Dam Authority	Yes			2	0	0	100%
John Turner (Chair)	Western Farmers Electric Power Association	Yes			2	0	0	100%
John Vara	Golden Spread Electric	Yes			2	0	0	100%
Liam Stringham	Sunflower Electric Power Corporation	Yes			2	0	0	100%
Lottie Jones (Staff Secretary)	SPP	Yes			2	0	0	100%
Preston Blinsky	Basin Electric Power Cooperative	Yes			2	0	0	100%
Reené Miranda	Southwestern Public Service	Yes			2	0	0	100%
Ryan Baysinger	Evergy	Yes			2	0	0	100%
Scott Rainbolt	American Electric Power	Yes			1	0	1	50%
Scott Schichtl	Arkansas Electric Cooperative Corporation	Yes			2	0	0	100%
Steve Hohman	Omaha Public Power District	Yes			1	0	0	100%
Tyler Baxter	Corn Belt Power Cooperative	Yes			1	0	1	50%

Annual Assessment Totals	
Average Length of Meetings (hrs)	2
Number of Votes Taken	5
Average Overall Attendance	61
Total Meetings this Assessment	2
Live	0
Teleconference	2
Scope Reviewed	
Transmission Owner(s)	0
Transmission User(s)	0
Director(s)	0
Investor Owned Utility	0
Cooperative	0
Municipal	0
State	0
Federal	0
Independent Power Producer / Marketer	0
Independent Transmission Company	0
Large Retail	0
Alt Power / Public Interest	0
Small Retail	0

# Model Development Advisory Group

Meeting Cost(s)	\$
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**MAJOR INITIATIVES ADDRESSED BY THE GROUP**

1

2

3

**MAJOR PENDING INITIATIVES BEFORE THE GROUP**

1

2

3

