

MDAG MINUTES

July 13, 2023

SOUTHWEST POWER POOL MODEL DEVELOPMENT ADVISORY GROUP MEETING

July 13, 2023 9:00 am – 11:00 am (CST)

Conference Call

SUMMARY OF MOTIONS AND ACTION ITEMS

Action Items:

- **Action Item:** Communicate with Mae Cruz regarding her opposition to the model selection

Motions:

- **Motion:** Jason Shook motioned to approve the agenda. Scott Schichtl seconded the motion. The group did not voice any concerns. The motion passes unanimously.
- **Motion:** Jason Shook motioned to approve the June meeting minutes. Mae Cruz and Scott Schichtl seconded the motion. The group did not voice any concerns. The motion passes unanimously.
- **Motion:** Alex Mucha motioned to approve the 2024 MDAG model schedule and model selection. Jesse Kreutzfeldt seconded the motion. Mae Cruz opposed the model selection portion. The rest of the group did not voice any concerns. The motion passes with the noted opposition.

MDAG MINUTES

July 13, 2023

Southwest Power Pool MODEL DEVELOPMENT ADVISORY GROUP MEETING

July 13, 2023 9:00 am – 11:00 am (CST)

Conference Call

MINUTES

AGENDA ITEM 1 – ADMINISTRATIVE ITEMS

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

SPP 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.

MDAG MINUTES

July 13, 2023

AGENDA ITEM 1C & 1D – ATTENDANCE AND PROXIES

The following members attended or were represented by proxy:

MDAG Member	Present	Proxy	Present	Company
Tyler Baxter	Yes			Corn Belt Power Cooperative
Jerry Bradshaw	Yes			City Utilities of Springfield
Dustin Betz	No			Nebraska Public Power District
Preston Blinsky	No			Basin Electric Power Cooperative
Joe Fultz	Yes			Grand River Dam Authority
Brianna Haug	Yes			Western Area Power Administration, MDAG Vice-Chair
Steve Hohman	Yes			Omaha Public Power District
Reené Miranda	No	Mae Cruz	Yes	Southwestern Public Service
Alex Mucha	Yes			Oklahoma Municipal Power Authority
Scott Rainbolt	Yes			American Electric Power
Scott Schichtl	Yes			Arkansas Electric Cooperative Corporation
Jason Shook	Yes			GDS Associates
Liam Stringham	Yes			Sunflower Electric Power Corporation
John Turner	Yes			Western Farmers Electric Power, MDAG Chair
Lottie Jones	Yes			Southwest Power Pool, Inc., MDAG Secretary
John Vara	No	David Mendoza	Yes	Golden Spread Electric
Ryan Baysinger	Yes			Evergy
Jesse Kreutzfeldt	Yes			Missouri River Energy Services

Material: JULY13_Attach2 - 1c. MDAG Conference Call Attendance-07-13-2023

MDAG MINUTES

July 13, 2023

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

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

Motion: Jason Shook motioned to approve the agenda. Scott Schichtl seconded the motion. The group did not voice any concerns. The motion passes unanimously.

Material: JULY13_Attach1- 1e. MDAG Meeting Agenda

AGENDA ITEM 1F – PREVIOUS JUNE MEETING MINUTES (**APPROVAL ITEM**)

Lottie Jones asked the group if they had any proposed changes for the previous June, meeting minutes. Several updates from Reene Miranda with SPS that will be reflected in the attached minutes

Motion: Jason Shook motioned to approve the June meeting minutes. Mae Cruz and Scott Schichtl seconded the motion. The group did not voice any concerns. The motion passes unanimously.

Material: JULY13_Attach3- 1f. June 2023 Meeting Minutes.docx

MDAG MINUTES

July 13, 2023

AGENDA ITEM 2 – REVIEW OF PAST ACTION ITEMS

Lottie Jones discussed outstanding issues highlighted in red font, including the action items added from the last meeting. 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 – will be discussed in the July FG meeting.

Action Item 206 – will be added to the SPP roadmap process for next year.

Action Item 207 –will be removed from the roadmap process and kept optional.

AGENDA ITEM 3 –2024 MODELING SCHEDULE AND MODEL SELECTION DISCUSSION

SPP staff, Lottie Jones, updated the group on the recent feedback receive from sunflower. SPP confirmed that FERC 715 filing will still include open communication to its members notifying of the filing and the models that were selected. There was not any additional feedback received.

AGENDA ITEM 4 – 2024 MODELING SCHEDULE AND MODEL SELECTION (APPROVAL ITEM*)

Motion: Alex Mucha motioned to approve the 2024 MDAG model schedule and model selection. Jesse Kreutzfeldt seconded the motion. Mae Cruz opposed the model selection portion. The rest of the group did not voice any concerns. The motion passes with the noted opposition.

Noted opposition *SPS does not believe that the model selection presented for approval during the July 13, 2023 MDAG meeting is a sufficient representation of the models that are required to address project Needs for the SPS area and/or other areas that are experiencing large load growth. SPS did request that additional models for the summer and winter be added for the missing years (aka. Gap Years) where a planning process cannot identify the transmission system needs if models are not available. As such SPS does not agree with the model selection and votes No to the approval of Agenda item #4.*

Material: JULY13_Attach4- 2024 Modeling Schedule and Model Selection

AGENDA ITEM 5 – AUGUST MEETING MAIN TOPICS

SPP staff, Lottie Jones, updated the group on August meeting topics to look forward to.

- a. EMT Modeling
 - i. Doug Bowman will be providing this update.
- b. NERC Updates

MDAG MINUTES

July 13, 2023

- i. Shannon Mickens will be providing this update.
- c. RR452
 - i. This will be a new process for how we deal with planned projects. Topic still pending
- d. FERC Order 881
 - i. Chris Colson will be presenting in the MDAG FG meeting and then bringing the update to the next MDAG meeting

AGENDA ITEM 6 – DISCUSSION OF FUTURE MEETINGS

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

- a. MDAG: August 17, 2023 (9:00 AM – 12:00 PM)
- b. MDAG Focus Group: July 25, 2023 (1:00 PM – 3:00 PM)
 - ii. Facilitate technical discussions
 - iii. MDAG changes (manual, schedule, etc) must be discussed in FG before being brought to MDAG
- c. Ambient Adjustment Ratings Implementation Task Force: August 7, 2023 (9:00AM 11:00AM)

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 7 – SUMMARY OF ACTION ITEMS

Lottie discussed the action items from this meeting:

- **Action Item:** Communicate with Mae Cruz regarding her opposition to the model selection

AGENDA ITEM 15 – ADJOURN

John Turner adjourned the meeting at 9:26 a.m. (CST)

Respectfully Submitted,

MDAG MINUTES

July 13, 2023

Lottie Jones
Secretary

Eric Sullivan
Secretary Assistant

Attachments

JULY13_Attach1- 1e. MDAG Meeting Agenda.docx

JULY13_Attach2 - 1c. MDAG Conference Call Attendance-07-13-2023

JULY13_Attach3- 1f. April June Meeting Minutes.docx

JULY13_Attach4- 2024 Modeling Schedule and Model Selection

SOUTHWEST POWER POOL, INC.

MODEL DEVELOPMENT ADVISORY GROUP MEETING

July 13, 2023

Conference Call

9:00 a.m. – 11:00 a.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 ~~December~~ June Meeting Minutes (**Approval Item**)
2. Review of Past Action Items Lottie Jones (10 mins)
3. 2024 Modeling Schedule and Model Selection Discussion..... MDAG (30 mins)
4. 2024 Modeling Schedule and Model Selection (**Approval Item***) Brandon Hentschel (5 mins)
5. August Meeting Main Topics..... Lottie Jones (5 mins)
 - a. EMT Modeling
 - b. NERC Updates
 - c. RR452
 - d. FERC Order 881
6. Discussion of Future Meetings John Turner (5 mins)

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

- a. MDAG: August 17, 2023 (9:00 AM – 12:00 PM)
- b. MDAG Focus Group: July 25, 2023 (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

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.

- c. Ambient Adjustment Ratings Implementation Task Force: August 7, 2023 (9:00AM 11:00AM)

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](#)

- 7. Summary of Action Items..... Lottie Jones (5 mins)
 - a. Agenda Review – additional comments request
- 8. Adjourn..... All

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

Attendance worksheet

1. Input your group's name in A1

2. Enter your representative information

- A. Enter the names of your rostered representatives in column A, beginning with your name (staff secretary) in row 7
- B. Enter the company name for each of the rostered representatives in column B, beginning with "SPP" in row 7

2. Enter your 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

3. Track 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 webex, 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.

Org Report Survey worksheet

1. Enter member 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

2. Enter Yes or No to indicate the status of your scope review in L8

3. Enter Assessment Period in A2

Model Development Advisory Group

Meeting Date(s)	5/18/2023	6/14/2023	6/15/2023	7/13/2023
Meeting Length (hrs)	2.5	3	2	3
Number of Votes Taken	2	5	3	3
Overall Attendance	61	68	69	68
				70
				56
				52

Member Name	Company	Current Member	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Alex Mucha	Oklahoma Municipi	Yes	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx
Brianna Haug (Vice Chair)	Western Area Powe	Yes	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx
Dustin Betz	Nebraska Public Po	Yes	WebEx	WebEx	WebEx	Proxy	WebEx	WebEx	Absent
Jason Shook	GDS Associates	Yes	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Jerry Bradshaw	City Utilities of Sprin	Yes	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx
Jesse Kreuzfeldt	Missouri River Enert	Yes	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx
Joe Fultz	Grand River Dam Ai	Yes	WebEx	WebEx	Absent	WebEx	In-Person	In-Person	WebEx
John Turner (Chair)	Western Farmers Ek	Yes	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
John Vara	Golden Spread Elec	Yes	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	Proxy
Liam Stringham	Sunflower Electric P	Yes	WebEx	WebEx	WebEx	WebEx	Proxy	Proxy	WebEx
Lottie Jones (Staff Secretary)	SPP	Yes	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Preston Blinsky	Basin Electric Power	Yes	WebEx	WebEx	Absent	WebEx	WebEx	WebEx	Absent
Reené Miranda	Southwestern Publi	Yes	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	Proxy
Ryan Baysinger	Eversgy	Yes	Absent	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx
Scott Rainbolt	American Electric Pt	Yes	WebEx	WebEx	WebEx	Absent	In-Person	In-Person	WebEx
Scott Schicht	Arkansas Electric Co	Yes	WebEx	WebEx	WebEx	Proxy	In-Person	In-Person	WebEx
Steve Hohman	Omaha Public Powe	Yes	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx
Tyler Baxter	Corn Belt Power Co	Yes	WebEx	WebEx	Proxy	WebEx	Absent	Absent	WebEx
Guest Name	Company	Current Member							
Adam Mummert	Burns & McDonnell	No	WebEx						
Adam Nmili	Oklahoma Gas and	No	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Afshin Salehian	SPP	No							
Adam Schieffer	OPPD	No		WebEx			WebEx		
Ala Wadi	Liberty Utilities	No	WebEx	WebEx	WebEx	WebEx			WebEx
Amine Chenaf	DNV	No							
Andrew Berg	Missouri River Enert	No	WebEx	WebEx					WebEx
Andrew Howard	Lincoln Electric Syst	No	WebEx			WebEx	WebEx	WebEx	WebEx
Antonio Barrera	Southwestern Publi	No			WebEx	WebEx	WebEx		
Armin Sehic	Nebraska Municipal	No	WebEx	WebEx	WebEx	WebEx		WebEx	WebEx
Aster Amalhaton	Nebraska Municipal	No		WebEx					
Ben Hammer	WAPA	No	WebEx						
Becca McCann	SPP	No	WebEx	WebEx	WebEx		In-Person	In-Person	
Ben Mitchell	SPP	No					In-Person	In-Person	
Blake Poole	Eversgy	No							
Bobby Gray	Liberty Utilities	No	WebEx	WebEx					WebEx
Brandon Hentschel	SPP	No	WebEx	WebEx		WebEx	In-Person	In-Person	WebEx
Brenda Harris	DOY	No							
Brian Johnson	AEP	No					WebEx		
Brooke Keene	SPP	No		WebEx			WebEx		
Bruce Doll	Nebraska Municipal	No							
Calvin Coates	Kansas Power Pool	No	WebEx	WebEx	WebEx	WebEx	WebEx		
Casey Cathy	SPP	No							
Charles Costello	Siemens	No							
Cho Wang	American Electric Pt	No							WebEx
Chris Colson	Western Area Powe	No	WebEx		WebEx				
Chris Davis	SPP	No			WebEx				
Chris Gidden	Tri State	No							
Chris Rich	Oklahoma Gas and	No		WebEx	WebEx	WebEx	In-Person	In-Person	
Clarence Campbell	SPP	No		WebEx	WebEx	WebEx			WebEx
Claire Vigeeaa	Burns & McDonnell	No							
Conner Sweet	City Utilities of Sprin	No	WebEx	WebEx	WebEx		WebEx	WebEx	
Curtis Miller	Western Farmers Ek	No							
Dale Reinhold	Hastings Utilities	No	WebEx						
Damien Burbaage	AEC	No							
Danielle Berg	Sunflower Electric P	No		WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Darian Richards	SPP	No		WebEx	WebEx	WebEx	In-Person	In-Person	
David Bromberg	Pearl Street Technol	No							
David Duhart	SPP	No	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
David Mendosa	Grand River Dam Ai	No	WebEx	WebEx	WebEx	WebEx			
David Zhong	American Electric Pt	No		WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Derek Brown	Eversgy	No							
Devon Pehson	National Grid Rene	No	WebEx						
Diego Toledo	Grand River Dam Ai	No	WebEx	WebEx		WebEx	In-Person	In-Person	
Douglas Bowman	SPP	No							
Dona Parks	Grand River Dam Ai	No	WebEx	WebEx		WebEx	WebEx	WebEx	
Donald Hargrove	Oklahoma Gas and	No							
Dustin Moser	Liberty Utilities	No		WebEx			In-Person	In-Person	
Dylan Fate	Tri State	No							
Dylan Haas	Eversgy	No			WebEx	WebEx	In-Person	In-Person	WebEx
Ebrahim Rezaei	American Electric Pt	No							
Eddie Watson	SPP	No	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Edin Terzic	Lincoln Electric Syst	No							
Eli Nyambegera	Sunflower Electric P	No							
Elijah Salinas	LES	No	WebEx		WebEx	WebEx			WebEx
Elihu Cook	SPP	No							
Eric Jones	Omaha Public Powe	No	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx
Eric Sullivan	SPP	No	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	
Erin Cathy	SPP	No							
Erik Voice	Salem Electric	No		WebEx					
Estevan Padilla	SPP	No	WebEx	WebEx	WebEx		In-Person	In-Person	
Frank Favela	Southwestern Publi	No							
Garrick Nelson	Western Area Powe	No			WebEx				
Gary Boeinger	Oklahoma Gas and	No					In-Person	In-Person	WebEx
Gavin Nowotny	Eversgy	No							
Glen Halley	City Utilities of Sprin	No		WebEx					
Grace Bouziden	Oklahoma Gas and	No							
Hannah Mason	Light Source BP	No							
Harriet Walsh	Orsted	No							
Hugh Benfer	SPP	No	WebEx	WebEx	WebEx				WebEx
James Okenfuss	Savon Energy	No							
Jason Aleske	Nebraska Public Po	No			WebEx	WebEx	In-Person	In-Person	WebEx
Jeff Krottek	City Utilities of Sprin	No							
Jeff McDiarmid	SPP	No							
Jeff Plaw	NextEra	No							
Jeffrey Taylor	ITC	No	WebEx	WebEx	WebEx	WebEx			
Jens Boemer	EPRI	No					WebEx		
Jerad Ethridge	Oklahoma Gas and	No							
Jeremy Severson	Basin Electric Power	No	WebEx						
Jesse Kreuzfeldt	Missouri River Enert	No							
Joe Williams	Western Farmers Ek	No					WebEx		
Joel Huber	Basin Electric Power	No							
Joey Schrepel	Basin Electric Power	No							WebEx
John Boshears	City Utilities of Sprin	No							
John Mayhan	Omaha Public Powe	No			WebEx				WebEx
John Vara	Golden Spread Elec	No							
John Varnell	Tenaska	No							
John Wilson	Southern Current LL	No							
Jon Langford	Orsted	No							
Jonah Montgomery	Eversgy	No					WebEx		
Jonathan Aus	East River	No							
Jordan Skillern	Western Farmers Ek	No					In-Person	In-Person	WebEx
Jose Cordova	EPRI	No							WebEx
Josh Hesselbein	Arkansas Electric Co	No	WebEx		WebEx	WebEx	In-Person	In-Person	WebEx
Joshua Pilgrim	SPP	No			WebEx				
Josie Daggett	WAPA	No			WebEx				WebEx
Juliano Freitas	SPP	No							
Justin Heit	1890 and Company	No							
Kadeem Brown	AEP	No	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	
Kalun Kelley	WVEC	No	WebEx		WebEx				
Kelsey Allen	SPP	No							
Kim Grogan	Eversgy	No							
Kimberly Woods	SPP	No							
Kristie Brown	SPP	No	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Kristen Darden	SPP	No							
Larry Brusseau	Corn Belt Power Co	No			WebEx				
Liz Gephardt	SPP	No							
Logan Peterson MPC	Minnkota	No	WebEx		WebEx				
Luke Zahner	Kepeco	No					WebEx	WebEx	
Mae Cruz	Southwestern Publi	No		WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Marc Moor (Eversgy)	Eversgy	No			WebEx				
Margaret Kristian	National Grid Rene	No							
Martin Green	American Electric Pt	No	WebEx		WebEx	WebEx	In-Person	In-Person	WebEx
Mason Favazza	SPP	No							
Matthew Alvarado	IUB	No							
McKady Kellam	Eversgy	No							
Miah Archambault	Enel	No			WebEx				WebEx
Michael Bowman	City Utilities of Sprin	No			WebEx				
Mike Swan	Omaha Public Powe	No	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Moses Rotich	Gridliance	No							
Mostafa Sadighizadeh	SPP	No							
Nathan Davis	Liberty Utilities	No	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx
Nathan McNeil	Midwest Energy	No							
Nicholas Hoelzeman	Eversgy	No			WebEx				
Nicole Hicks	WAPA	No							
Nitin Kushwaha	National Grid Rene	No							
Neeya Toleman	NextEra	No			WebEx	WebEx	WebEx	WebEx	
Nolan Fertig	SPP	No							
Pallab Datta	Eversgy	No	WebEx	WebEx	WebEx	WebEx	WebEx	WebEx	
Paul Vovk	Omaha Public Powe	No	WebEx		WebEx	WebEx	WebEx		
Peter Jones	Savion	No							
Phil Westby	BEPC	No	WebEx						
Prajakta Pawar	Quanta Technology	No			WebEx				
Rakib Rahman	Eversgy	No					WebEx	WebEx	
Ransome Egunjobi	Enel	No							
Richard Miner	Liberty Utilities	No							
Ryan Baysinger	Eversgy	No							
Ryan Benton	Oklahoma Gas and	No	WebEx			WebEx	WebEx		
Scott Holland	SWPA	No							
Scott Jordan	SPP	No			WebEx	WebEx	WebEx		
Scott Mjlin	Southwestern Powe	No	WebEx	WebEx	WebEx	WebEx			
Seih Cochran	WebEx	No	WebEx						
Shalini Gupta	Apex Clean Energy	No							
Shannon Mickens	SPP	No				WebEx			
Shawn Gill	Kepeco	No					WebEx		
Shawna Sattenswhite	Oklahoma Gas and	No					WebEx		
Sherri Maxey	SPP	No			WebEx				
Steve Hardebeck	Oklahoma Gas and	No							
Steve Purdy	SPP	No							
Steven Park	Sunflower Electric P	No							
Sunny Raheem	SPP	No			WebEx	WebEx			
Tanner New	Sunflower Electric P	No	WebEx			WebEx			
Thomas Burns	SPP	No							
Theo Brown	SPP	No			WebEx	WebEx	WebEx	In-Person	In-Person
Timothy Sell	ITS	No			WebEx		WebEx	WebEx	
Todd Chwalkowski	EDF	No							
Tom Belsho	Eversgy	No							
Tom Mayhan	Omaha Public Powe	No							
Tony Green	SPP	No	WebEx				In-Person		
Walt Shumate	Shumate & Associat	No	WebEx	WebEx	WebEx	WebEx	WebEx		WebEx
Xiaoyu Wang	Enel	No			WebEx				
Yasmin Sakalla	Enel	No							
Ying Yang	Duke Energy	No			WebEx	WebEx			
Zach Andera	Burns & McDonnell	No							
Zach Sabey	SPP	No	WebEx	WebEx	WebEx	WebEx	In-Person	In-Person	WebEx

Model Development Advisory Group

August 2021 - July 2022

Name	Company	Is Current Member?
Alex Mucha	Oklahoma Municipal Power Authority	Yes
#REF!	#REF!	#REF!
Brianna Haug (Vice Chair)	Western Area Power Administration	Yes
Dustin Betz	Nebraska Public Power District	Yes
#REF!	#REF!	#REF!
Jason Shook	GDS Associates	Yes
#REF!	#REF!	#REF!
#REF!	#REF!	#REF!
Jerry Bradshaw	City Utilities of Springfield	Yes
Joe Fultz	Grand River Dam Authority	Yes
#REF!	#REF!	#REF!
Liam Stringham	Sunflower Electric Power Corporation	Yes
Preston Blinsky	Basin Electric Power Cooperative	Yes
Reené Miranda	Southwestern Public Service	Yes
#REF!	#REF!	#REF!
Scott Rainbolt	American Electric Power	Yes
Scott Schichtl	Arkansas Electric Cooperative Corporation	Yes
Steve Hohman	Omaha Public Power District	Yes
#REF!	#REF!	#REF!
Tyler Baxter	Corn Belt Power Cooperative	Yes
Amine Chenaf	DNV	No
Andrew Howard	Lincoln Electric System	No
Antonio Barrera	Southwestern Public Service	No
Armin Sehic	Nebraska Municipal Power Pool	No
Becca McCann	SPP	No
Brandon Hentschel	SPP	No
Brooke Keene	SPP	No
John Turner (Chair)	Western Farmers Electric Power	Yes
Bruce Doll	Nebraska Municipal Power Pool	No
Casey Cathey	SPP	No
Chris Colson	Western Area Power Administration	No
Conner Sweet	City Utilities of Springfield	No
David Duhart	SPP	No
David Zhong	American Electric Power	No

Diego Toledo	Grand River Dam Authority	No
Edin Terzic	Lincoln Electric System	No
Eli Nyambegera	Sunflower Electric Power Corporation	No
Ellen Cook	SPP	No
Frank Favela	Southwestern Public Service	No
Garrick Nelson	Western Area Power Administration	No
Grace Bouziden	Oklahoma Gas and Electric Company	No
James Okenfuss	Savion Energy	No
Jason Menke	Nebraska Public Power District	No
Jeff Plew	NextEra	No
Jeremy Severson	Basin Electric Power Cooperative	No
Jesse Kreutzfeldt	Missouri River Energy Services	Yes
Joe Williams	Western Farmers Electric Power	No
John Mayhan	Omaha Public Power District	No
John Vara	Golden Spread Electric	Yes
#REF!	#REF!	#REF!
Kimberly Woods	SPP	No
Mae Cruz	Southwestern Public Service	No
Marc Moor (Evergy)	Evergy	No
McKady Kellam	Evergy	No
Mike Swan	Omaha Public Power District	No
Moses Rotich	Gridliance	No
Nolan Fertig	SPP	No
Peter Jones	Savion	No

Member Type	Sector	Present	Proxy	Absent	Percent Present
Staff	RTO	19	0	2	90%
Staff	RTO	#REF!	#REF!	#REF!	N/A
TO	Investor Owned Utility	21	0	0	100%
TU	Cooperative	18	2	1	95%
TU	Cooperative	#REF!	#REF!	#REF!	N/A
TO	Cooperative	18	0	3	86%
TU	Municipal	#REF!	#REF!	#REF!	N/A
TO	State	#REF!	#REF!	#REF!	N/A
TO	Cooperative	19	1	1	95%
TO	State	18	1	2	90%
TO	Investor Owned Utility	#REF!	#REF!	#REF!	N/A
TO	Federal	18	3	0	100%
TO	State	16	2	3	86%
TU	Investor Owned Utility	15	6	0	100%
TU	Municipal	#REF!	#REF!	#REF!	N/A
TU	Investor Owned Utility	18	2	1	95%
TU	Investor Owned Utility	18	3	0	100%
TU	Cooperative	20	1	0	100%
TO	Cooperative	#REF!	#REF!	#REF!	N/A
TO	Cooperative	15	2	4	81%

Annual Assessment Totals**Average Length of Meetings (hrs) 3****Number of Votes Taken 81****Average Overall Attendance 60****Total Meetings this Assessment 24****Live 3****Teleconference 21****Scope Reviewed No****Transmission Owner(s) 7****Transmission User(s) 5****Director(s) 0****Investor Owned Utility 4****Cooperative 5****Municipal 0****State 2****Federal 1****Independent Power Producer / Marketer 0****Independent Transmission Company 0****Large Retail 0****Alt Power / Public Interest 0****Small Retail 0**

MDAG MINUTES

June 14-15, 2023

SOUTHWEST POWER POOL MODEL DEVELOPMENT ADVISORY GROUP MEETING

Southwest Power Pool

201 Worthen Drive

Little Rock, AR 72223

Face-to-Face

June 14, 2023 9:00 am – 4:00 pm (CST)

June 15, 2023 8:30 am – 12:00 pm (CST)

SUMMARY OF MOTIONS AND ACTION ITEMS

Action Items:

- **Action Item:** SPP staff to follow up with Dona Parks about EDST project.
- **Action Item:** Ensure 550 will be included in the next FG to discuss owner numbers for GOs. Data submitters will take this in house.
- **Action Item:** July 13th meeting 9-11am for approval of schedule/model selection.
- **Action Item:** AEP/SPP staff to take rate 3 to TWG
- **Action Item:** SPP to add this model review to the SPP roadmap process for next year.

Motions:

- **Motion:** Scott Rainbolt motioned to approve the presented agenda as modified. Scott Schichtl seconded the motion. The group did not voice concerns during the discussion of the motion. The motion passed unanimously.
- **Motion:** ReneeReene Miranda motioned to approve May 18, 2023, meeting minutes as presented. Jason Shook seconded the motion. The group did not voice any additional concerns during the discussion of the motion. The motion passed.
- **Motion:** Jason Shook motioned to table the discussion until the TWG concerns are resolved. Scott Schichtl seconded the motion. The group did not voice any concerns. The motion passes unanimously.
- **Motion:** Brianna Haug motioned to hold the next model selection and model schedule discussion on July 13th at 9:00 a.m. Alex Mucha seconded the motion. The group did not voice any concerns. The motion passes unanimously.
- **Motion:** Joe Fultz motioned to approve the MDAG Manual Version 7.0 as presented. Brianna Haug seconded the motion. Dustin Betz abstained from the

MDAG MINUTES

June 14-15, 2023

vote. John Turner marked himself as a nay for voting purposes. The motion passes.

Southwest Power Pool
MODEL DEVELOPMENT ADVISORY GROUP MEETING

June 14, 2023 9:00 am – 4:00 pm (CST)

June 15, 2023 8:30 am – 12:00 pm (CST)

Conference Call

MINUTES

AGENDA ITEM 1 – SPP WELCOME

SPP staff, Tony Green, welcomed the MDAG members to the 2023 in-person meeting.

AGENDA ITEM 2 – FACILITIES REVIEW

SPP staff, Darian Richards, went over the facilities review with the group.

AGENDA ITEM 3 – ADMINISTRATIVE ITEMS

AGENDA ITEM 3A & 3B – CALL TO ORDER AND ANTITRUST STATEMENT

SPP 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.

MDAG MINUTES

June 14-15, 2023

AGENDA ITEM 3C & 3D – ATTENDANCE AND PROXIES

The following members attended or were represented by proxy:

MDAG Member	Present	In Person	Proxy	Present	Company
Tyler Baxter	No				Corn Belt Power Cooperative
Jerry Bradshaw	Yes				City Utilities of Springfield
Dustin Betz	Yes				Nebraska Public Power District
Preston Blinsky	Yes				Basin Electric Power Cooperative
Joe Fultz	Yes	X			Grand River Dam Authority
Brianna Haug	Yes				Western Area Power Administration, MDAG Vice-Chair
Steve Hohman	Yes				Omaha Public Power District
Reené Miranda	Yes	X			Southwestern Public Service
Alex Mucha	Yes				Oklahoma Municipal Power Authority
Scott Rainbolt	Yes	X			American Electric Power
Scott Schichtl	Yes	X			Arkansas Electric Cooperative Corporation
Jason Shook	Yes	X			GDS Associates
Liam Stringham	Yes		Tanner New		Sunflower Electric Power Corporation
John Turner	Yes	X			Western Farmers Electric Power, MDAG Chair
Lottie Jones	Yes	X			Southwest Power Pool, Inc., MDAG Secretary
John Vara	Yes	X			Golden Spread Electric
Ryan Baysinger	Yes				Evergy
Jesse Kreuzfeldt	Yes				Missouri River Energy Services

Material: JUNE14/15_Attach2 - 3c. MDAG Conference Call Attendance-06-14/15-2023

MDAG MINUTES

June 14-15, 2023

AGENDA ITEM 3E – AGENDA REVIEW (**APPROVAL ITEM**)

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

Scott Rainbolt motioned to sing happy birthday to Joe Fultz today.

Motion: Scott Rainbolt motioned to approve the presented agenda as modified. Scott Schichtl seconded the motion. The group did not voice concerns during the discussion of the motion. The motion passed unanimously.

Material: JUNE14/15_Attach1 - 3e. MDAG Meeting Agenda

AGENDA ITEM 3F – PREVIOUS MAY 18, 2023 MEETING MINUTES (**APPROVAL ITEM**)

Lottie Jones asked the group if they had any proposed changes for the previous May 18, 2023, meeting minutes.

Motion: ReneeReene Miranda motioned to approve May 18, 2023, meeting minutes as presented. Jason Shook seconded the motion. The group did not voice any additional concerns during the discussion of the motion. The motion passed.

Material: JUNE14/15_Attach3 - 3f. MAY 18, 2023, Meeting Minutes.docx

MDAG MINUTES

June 14-15, 2023

AGENDA ITEM 4 – REVIEW OF PAST ACTION ITEMS

Lottie Jones discussed outstanding issues highlighted in red font, including the action items added from the last meeting. 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 – Currently under area 550 discussion. Will be discussed later on the agenda.

AGENDA ITEM 5 – SPP IEEE 1547-2018 ADOPTION (APPROVAL ITEM)

SPP staff, Scott Jordan, shared the latest update on IEEE 1547-2018 with the group.

SPP Member Company requested additional information in regards to any questions/concerns from TWG during the last TWG meeting. SPP noted there were some concerns regarding jurisdiction during the meeting. Once IEEE 1547 is adopted this will set the expectation for the standards for DER developers. Although this is not currently a requirement, support would be provided by the AGIR.

SPP Member Company provided a resource to support this agenda item “Other Industry examples: MISO Guideline for IEEE Std 1547-2018 Implementation Recommendations on Requirements Impacting Transmission Systems”.

<https://cdn.misoenergy.org/MISO%20Guideline%20for%20IEEE%20Std%201547388042.pdf>

SPP Member Company asked for clarification that this would not be additional work to TOs and modelers to request this information at this time. SPP confirmed, this is true and would not require additional work from the TOs or modelers at this time. The only current documents that point to the DER requirements are IEEE 1547-2003 or IEEE 1547-2014.

SPP Member Company is in favor of where this is going and the path moving forward in the future.

Motion: Jason Shook motioned to table the discussion until the TWG concerns are resolved. Scott Schichtl seconded the motion. The group did not voice any concerns. The motion passes unanimously.

AGENDA ITEM 6 – MODEL SELECTION STRAW POLL RESULTS

SPP staff, Lottie Jones, reviewed the results for the straw poll.

The favorable result was not adding additional models at this time with 81% of the votes.

MDAG MINUTES

June 14-15, 2023

SPS staff, [ReneeReene](#) Miranda, mentioned that there should not be difficulty in creating additional summer models in the first 5 years. Is there anything that could be done for year 4?

Reene Miranda noted that there are gap years in the model selection that is produced MDAG where it is difficult to identify Needs related to Oil Gas development, EV load penetration and Resources changes Fossil to IBRs or other load types especially in areas with rapid load growth. Additionally, SPP could benefit from these "gap year" models in some of their planning processes.

Action Item: SPP to add this model review to the SPP roadmap process for next year.

Eddie mentioned that there is a process for adding models so SPP can provide this information to MDAG membership.

AGENDA ITEM 7 – CPPTF UPDATE & SCRIPT C3 COMMON MODEL SET GUIDANCE

SPP staff, Brandon Hentschel, updated the group on the updated CPPTF model proposal.

The MOD and EDST information should be the same as long as you don't change it in MOD. RR552 will remove the firm service requirement for resource inclusion for the ITP BR powerflow models. The proposal is to leave these generators in the model with an offline status, noting that pump storage will act similar how SPP handles batteries in the model.

AGENDA ITEM 8 – 2024 MODELING SCHEDULE AND MODEL SELECTION (APPROVAL ITEM)

SPP staff, Brandon Hentschel, provided the latest update on the 2024 model build schedule.

There is an update to row 36 and removal of the stars from the model selection table due to SPP modeling no longer exploring building 90/10 load models. Additionally the load amounts was removed from line 36 because load amount change thresholds was not discussed with membership and relates to late load data submissions via the 10.3 process.

SPP Member Company commented that the final MDAG models will be submitted on 4/5 to membership which may be too late for FERC 715 filing. SPP mentioned that the ITP models can be utilized for the FERC 715 filing in place of the MDAG models.

Modifications to posted agenda:

1. SPP will include a statement in the schedule regarding data submissions over the weekend.

MDAG MINUTES

June 14-15, 2023

2. Line 36 was updated to include "Last addition or removal chance for generators, loads, retirements, and transactions. After this pass, new loads will be required to go through a 10.3".
3. Line 23 and 24 update to correct dates
4. Correcting Dynamics modeling selection 27LL to 26LL

Is there a risk in using ITP models for the FERC 715 filing if there are 10.3 revisions after the models are finalized? There should not be an issue with any changes after the models are approved.

MDAG model updates after approval are handled by post-processing idevs; however, ITP model updates after initial final approval are handled by 10.3 submissions. The base models for MDAG do not change but the ITP models could change. However, SPP will submit the Initial Final ITP BR model for FERC 715 which would line up with the same model submitted by SPS for example.

SPP legal did not see any concerns with utilizing ITP models for FERC 715 filing.

Any comments, questions, votes, or concerns shall be submitted to SPP by July 6th for material posting.

Motion: Brianna Haug motioned to hold the next model selection and model schedule discussion on July 13th at 9:00 a.m. Alex Mucha seconded the motion. The group did not voice any concerns. The motion passes unanimously.

AGENDA ITEM 9 – BREAK

AGENDA ITEM 10 – 2024 MDAG MANUAL VERSION 7.0 (APPROVAL ITEM)

SPP staff, Brandon Hentschel, informed the group on the latest MDAG manual updates.

Adversely was added to the rating change language to give it more clarity and a row was added to the revision table for version 7.0.

MDAG Chair asked if any changes could be brought to MDAG prior to adding to the MDAG manual so that it may be approved prior to any changes and/or updates. These discussions could be held during the Focus Group meetings to avoid any confusion. If someone wants to make a change they should follow the change process and not simply bring it to SPP staff.

SPP Member Company asked for clarity that we are not re-approving items that were approved in May and simply approving the new items.

MDAG MINUTES

June 14-15, 2023

Motion: Joe Fultz motioned to approve the MDAG Manual Version 7.0 as presented. Brianna Haug seconded the motion. Dustin Betz abstained from the vote. John Turner marked himself as a nay for voting purposes. The motion passes.

AGENDA ITEM 11 – LUNCH

AGENDA ITEM 12 – AREA 550 DISCUSSION

Brianna Haug updated the group on the Area 550 discussion from the last MDAG meeting as well as the last Focus Group meeting.

The main purpose of this discussion is to start the conversation about defining and reorganizing how merchant generators are defined in the models. As mentioned in the Focus Group, it is possible to make this optional for those entities that are comfortable making the change.

Concerns/comments expressed by SPP Member Companies:

- Grabbing the correct data during topology comparisons.
- Generation is all in one zone and area which might make it a little easier to correctly model this data.
- There is difficulty in bringing consistency across the board. There is an unprecedented amount of generation sitting in the queue and it would be worthwhile to figure out how to deal with it ahead of time. There are studies that need geography as part of the study such as transfer studies. The concept in the common model set for CPPTF RR542 could tie in to the decision for this topic.
- Area 599 helps sort out some of these external areas. If we standardize the usage of the 599 area number we may get a scale of the size of the issue.
- Moving around area numbers for entities that reside in their area. Is the current issue going to go away if we move generators to a different area? Can Docucheck reference an owner number in place of an area number? Would SPP staff never contact the host TO for information on a non-host GO generator? What is to preclude anyone from changing generator area numbers today? The preference is to keep geographic area numbers in their respective area numbers. The GOs are responsible for maintaining and updating the data for their generators.
- The preferred option is to use owner number 599. Would it be possible to make a statement that entities are only responsible for what they own within the DocuCheck?

MDAG MINUTES

June 14-15, 2023

Brianna mentioned that there is benefit in moving external generation to owner number 599 as mentioned by several members previously. This topic will be discussed further in future meetings and is not close to consensus at this time.

John Turner asked for the simplest solution to this issue and that is not currently known at this time. This is something to think about for a future discussion.

Would it be possible to try out area/owner 599 and bring comments/concerns to the August Focus Group meeting?

Action Item: Ensure 550 will be included in the next FG to discuss owner numbers for GOs. Data submitters will take this in house.

AGENDA ITEM 13 – SHORT CIRCUIT DATABASE SUBMISSION

SPP staff, Eric Sullivan, updated the group on the next short circuit model build.

AGENDA ITEM 14 – POWERFLOW DATA SUBMISSION

SPP staff, Lottie Jones, updated the group on the next powerflow model build.

SPP Member Company mentioned that at one time there was an idev for tie line areas and outside entity corrections or updates. Is this still be utilized? There was some data that was put into MOD but was different in the final model submission. SPP commented that they can do a better job of ensuring that GRDA is on the emails sent by AECl to ensure that the tie lines between the two are correctly updated.

SPP Member Company asked if ratings are considered non-topological or topological. SPP staff commented that in MOD terminology the ratings go in a project file so they would be part of the topology instead of part of a profile.

AGENDA ITEM 15 – ACTIVITY

SPP staff, Estevan Padilla, shared an activity with the group.

AGENDA ITEM 16 – SPP MODEL COMPILATION

SPP staff, Hugh Benfer, provided the group with training on how SPP models are developed.

AGENDA ITEM 17 – MOD FILE BUILDER

SPP staff, David Duhart, provided a presentation on how to convert .raw to project (.prj) files.

MDAG MINUTES

June 14-15, 2023

AGENDA ITEM 18 – MOD WALKTHROUGH

SPP staff, Becca McCann, provided the group with a walkthrough of MOD including ratings and the anomaly log topics.

AGENDA ITEM 19 – SNACK

AGENDA ITEM 20 – EDST WALKTHROUGH

SPP staff, Kristie Brown, provided the group with a walkthrough of EDST.

AGENDA ITEM 21 – DYNAMICS DEMONSTRATION

SPP staff, Zach Sabey, provided the group with a dynamic model build demonstration.

AGENDA ITEM 22 – BREAKFAST

AGENDA ITEM 23A – 2023 SPP MDAG ROADMAP INITIATIVES SIR 544

SPP staff, Eric Sullivan, updated the group on the short circuit conversion of models from PSSE to ASPEN.

It is requested that this project be moved from planning to operations as they currently produce a node breaker model.

SPP is currently looking into how to produce a better PSSE model in order to make the conversion process a smoother experience.

This topic will be brought to future MDAG, TWG, and SPCAG for further discussion.

AGENDA ITEM 23B –2023 SPP MDAG ROADMAP INITIATIVES RATE 3

AGENDA ITEM 23BI – SURVEY RESULTS

SPP staff, Lottie Jones, updated the group on the Rate 3 survey results.

The majority of the group prefers that rate 3 data remain optional (no change) under the MDAG manual.

Would it be possible to transfer this over to TWG with the knowledge that MDAG prefers that this data remain optional?

FAC-008 states that you have to have this information so it may be best to send this to TWG in order to move it forward. This is a static rating and has nothing to do with AAR.

MDAG MINUTES

June 14-15, 2023

SPP Member Company requested to not add this data and/or keep it optional at this time. There is currently nothing that prevents someone from adding more ratings.

Action Item: AEP/SPP staff to take rate 3 to TWG

AGENDA ITEM 24 – 2023 SERIES MDAG MODEL BUILD/APPLICATION UPDATES

AGENDA ITEM 24A – DYNAMICS

SPP staff, Zach Sabey, updated the group on the 2023 series dynamic model build status.

AGENDA ITEM 25A – POWERFLOW

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

AGENDA ITEM 25B – SHORT CIRCUIT

SPP staff, Eric Sullivan, updated the group on the 2024 series MDAG short circuit model build.

AGENDA ITEM 25C – GMD

SPP staff, Eric Sullivan, updated the group on the 2024 series MDAG GMD model build.

AGENDA ITEM 25D – MOD-033

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

AGENDA ITEM 25E – EDST

SPP staff, Kristie Brown, updated the group on EDST changes and updates including the rollover and lockdown.

AGENDA ITEM 26 – FERC ORDER 881

Lottie requested any questions or concerns related to FERC 881 to take back internally before working group discussions begin.

SPP Member Company asked what would change with the current model set. There is some discussion on the AARITF with regards to language changes that will need to be updated in the future. SPP commented, currently FERC Order 881 does not have any planning requirements though this will likely be standardized to make all studies have the same data.

MDAG MINUTES

June 14-15, 2023

SPP Member Company If companies move to AARs, how does that impact NTCs? How will SPP deal with that? This has been taken internally by SPP in order to determine how we would handle this scenario.

AGENDA ITEM 27 – SUMMARY OF ACTION ITEMS

Lottie discussed the action items from this meeting:

- **Action Item:** Follow up with Dona Parks about EDST.
- **Action Item:** Ensure 550 will be included in the next FG to discuss owner numbers for GOs. Data submitters will take this in house.
- **Action Item:** July 13th meeting 9-11am for approval of schedule/model selection.
- **Action Item:** AEP/SPP staff to take rate 3 to TWG.
- **Action Item:** Add model review to the SPP Roadmap.

AGENDA ITEM 28 – DISCUSSION OF FUTURE MEETINGS

- a. MDAG: July 13, 2023 (9:00 AM – 11:00 AM)
- b. MDAG FG: July 25, 2023 (1:00 PM – 3:00 PM)
- c. Ambient Adjustment Ratings Implementation Task Force: July 10, 2023 (9:00 AM – 11:00 AM)

AGENDA ITEM 29 – ADJOURN

John Turner adjourned the meeting June 15th at 9:42 a.m. (CST)

Respectfully Submitted,

Lottie Jones
Secretary

Eric Sullivan
Secretary Assistant

MDAG MINUTES

June 14-15, 2023

Attachments

JUNE14_Attach1- 1e. MDAG Meeting Agenda.docx

JUNE14_Attach2 - 1c. MDAG Conference Call Attendance-06-14_15-2023

JUNE14_Attach3- 1f. April 20, 2023, Meeting Minutes.docx

JUNE14_Attach4- 8a. 2024 Modeling Schedule and Model Selection

JUNE14_Attach5- 8a. 2024 Modeling Schedule and Model Selection10. Draft_2024 MDAG Manual version 7.0

JUNE14_Attach6- MDAG Survey Results

Task Name
2024MDAG/2025 ITP BR Model Series (Powerflow, Short Circuit, Geomagnetic) - PSS/E v35.3# - MOD v11.2 (MOD-032 East) - MDAG Manual 7.0
Data Submitters provide Powerflow (PF) and Short Circuit (SC) data Updates through MOD and EDST
Data Submitter Updates (Load, Generation, MOD Committ, Transaction, Topology & Sequence Data) Due
SPP Staff send out kick-off email
2025 ITP BR Pass 1: Coordinate & Submit Load, Generation, Transaction, Topology, SC Data, Geomagnetic Data Updates
Pass 1: SPP Staff Lock Down MOD and EDST
SPP Staff compiles EDST/MOD data, dispatch information, and review projects
SPP Staff Build/Solve Pass 1 Powerflow Models
SPP Staff Review/Build Pass 1 Short Circuit Models
<i>SPP Staff Post Pass 1 PF and SC models, Report Card, Retirement List, DocuCode, and Geomagnetic Data for Data Submitter Review</i>
2025 ITP BR Pass 2: Coordinate & Submit Load, Generation, Transaction, Topology, SC Data, Geomagnetic Data Updates
Data Submitters review Pass 1 models and submit PF and SC data updates through MOD and EDST for use in Pass 2 Models
Data Submitter Updates (Load, Generation, Transaction, Topology & Sequence Data) Due
SPP Holidays - Labor Day
Pass 2: SPP Staff Lock Down MOD and EDST
SPP Staff compiles EDST/MOD data, dispatch information, and review projects
SPP Staff Build/Solve Pass 2 Powerflow Models
<i>SPP Staff Post Pass 2 PF models and DocuCode for Data Submitter Review</i>
2025 ITP BR Pass 3: Coordinate & Submit Load, Generation, Transaction, Topology, SC Data, Geomagnetic Data Updates
Data Submitters review Pass 2 models and submit PF and SC data updates through MOD and EDST for use in Pass 3 Models
Data Submitter Updates (Load, Generation, Transaction, Topology & Sequence Data) Due
Pass 3: SPP Staff Lock Down MOD and EDST
SPP Staff compiles EDST/MOD data, dispatch information, and review projects
SPP Staff Build/Solve Pass 3 Powerflow models
<i>SPP Staff Post Pass 3 PF and DocuCode for Data Submitter Review</i>
2025 ITP BR Pass 4: (Generation Dispatch, DocuCheck Issues and Topology Updates, Voltage Schedule Review)
Data Submitters review Pass 3 models and submit PF and SC data updates through MOD and EDST for use in Pass 4 Models
Data Submitter Updates (Load, Generation, Transaction, Topology & Sequence Data) Due
SPP Staff for Pass 4 Lock Down MOD and EDST
SPP Staff compiles EDST/MOD data, dispatch information, and review projects
Data Submitters provide Geomagnetic Model Updates
SPP Staff Build/Solve Pass 4 Powerflow models (Merge with latest MMWG models)
SPP Holidays - Thanksgiving days
<i>SPP Staff Post Pass 4 PF and DocuCode for Data Submitter Review</i>
2025 ITP BR Pass 5: (Last addition or removal chance for generators, retirements, loads and transactions)
SPP incorporate 2023 AG1 Transmission Service updates into EDST
Data Submitters review Pass 4 models, provide Final Transmission Service Inputs (AG1) Data and submit PF and SC data updates through MOD and EDST for use in Pass 5 Models
SPP Holidays - Christmas days
SPP Holidays -New Years days
Data Submitters provide Transmission Service Inputs (AG1) Data

Data Submitter Updates (Load, Generation, Transaction, Topology & Sequence Data) Due, review Pass 4 models/data submission through MOD, Final update load and generation (Pmax, Pmin, retirement) reports/reconcile transaction discrepancies. Last chance for addition or removal for generators, loads, retirements, and transactions. After this pass new
SPP Holidays - Dr. Martin Luther King, Jr. Day
SPP Staff for Pass 5 Lock Down MOD and EDST
SPP Staff compiles EDST/MOD data, dispatch information, and review projects
SPP Staff Build/Solve Pass 5 Powerflow models
SPP Staff Post Pass 5 PF models and DocuCode for Data Submitter Review
SPP Staff Review/Build Initial Final Pass ITP BR Short Circuit Models (Merge with latest SERC SC Models)
SPP Staff Post ITP BR SC models and DocuCode for Data Submitter Review
Voltage Schedule Review)
Member/Stakeholder Holidays -Presidents' Day
Data Submitters Review Pass 5 Models, Submit PF and SC corrections through idevs only for use in the Initial Final Pass Models
Data Submitters submit FINAL Generation Dispatch, DocuCheck Corrections and Topology data updates
SPP Staff Build/Solve Initial Final Pass ITP BR Powerflow Models and apply MOD System Alteration Projects, non-firm transactions, disaptch and solve Initial MDAG Models
SPP Staff Review/Build Initial Final Pass ITP BR Short Circuit Models
SPP Staff Post ITP BR Initial Final PF, MDAG Pass 1 PF and ITP BR SC models and DocuCode for Data Submitter Review
2024 MDAG: (Generation Dispatch, System Intact Alteratons, DocuCheck Issues, Voltage Schedule Review)
Data Submitters Review MDAG Pass 1 Models, Submit PF and SC corrections through idevs only for use in the Pass 2 MDAG Models
Data Submitters submit DocuCheck Corrections idevs and Coordinate any dispatch or interchange updates
SPP Staff apply idevs, re-disaptch if necessary and solve MDAG Models
SPP Staff Post Pass 2 2024 MDAG models and DocuCode for Data Submitter Review
Data Submitters Review MDAG Pass 2 Models, Submit PF and SC corrections through idevs only for use in the Final MDAG Models
Data Submitters submit DocuCheck Corrections idevs and Coordinate any dispatch or interchange updates
SPP Staff apply idevs, re-disaptch if necessary and solve MDAG Models
SPP Staff Post Final 2024 MDAG PF models and DocuCode for Data Submitter Review
SPP Staff Review/Build Final Pass MDAG Short Circuit Models
SPP Staff Post MDAG Final SC models and DocuCode for Data Submitter Review
<i>Finalization - MDAG Net Conference to Vote and Approve 2024 MDAG Powerflow Models as Final</i>
<i>Finalization - MDAG Net Conference to Vote and Approve 2024 MDAG Short Circuit Models as Final</i>
<i>Finalization - TWG to Vote and Approve 2025 ITP Powerflow Models as Initial-Final</i>
<i>Finalization - TWG to Vote and Approve 2025 ITP Short Circuit Models as Initial-Final</i>
MDAG Face-to-Face Meeting

Modeling data shall be submitted per this schedule. For data submittals due on a Friday, data submission is allowed through t Monday falls a SPP Holiday, data submissions are due on Tuesday by 8:00 AM. SPP may extend the data submittal periods in and Engineering Data Submittal Tool (EDST) web portals suffer technical difficulties during the data submittal pe.

Duration	Start	Finish
182 days	Mon 7/24/23	Fri 4/12/24
83 days	Mon 3/27/23	Mon 7/24/23
0 days	Mon 7/24/23	Mon 7/24/23
0 days	Mon 7/24/23	Mon 7/24/23
20 days	Mon 7/24/23	Fri 8/18/23
20 days	Mon 7/24/23	Mon 8/21/23
5 days	Mon 7/24/23	Fri 7/28/23
10 days	Mon 7/31/23	Fri 8/11/23
5 days	Mon 8/14/23	Fri 8/18/23
0 days	Fri 8/18/23	Fri 8/18/23
24 days	Mon 8/21/23	Fri 9/22/23
10 days	Mon 8/21/23	Fri 9/1/23
0 days	Fri 9/1/23	Fri 9/1/23
1 day	Mon 9/4/23	Mon 9/4/23
19 days	Tue 9/5/2023	Mon 9/25/23
4 days	Tue 9/5/2023	Fri 9/8/23
10 days	Mon 9/11/23	Fri 9/22/23
0 days	Fri 9/22/23	Fri 9/22/23
20 days	Mon 9/25/23	Fri 10/20/23
10 days	Mon 9/25/23	Fri 10/6/23
0 days	Fri 10/6/23	Fri 10/6/23
10 days	Mon 10/9/23	Mon 10/23/23
5 days	Mon 10/9/23	Fri 10/13/23
5 days	Mon 10/16/23	Fri 10/20/23
0 days	Fri 10/20/23	Fri 10/20/23
38 days	Mon 10/23/23	12/15/2023
10 days	Mon 10/23/23	Fri 11/3/23
0 days	Fri 11/3/23	Fri 11/3/23
28 days	Mon 11/6/23	Mon 12/18/23
5 days	Mon 11/6/23	Fri 11/10/23
0 days	Fri 11/13/23	Fri 11/13/23
23 days	Mon 11/13/23	Fri 12/15/23
2 days	Thu 11/23/23	Fri 11/24/23
0 days	Fri 12/15/23	Fri 12/15/23
27 days	Mon 12/18/23	1/26/2024
0 days	Fri 12/15/23	Fri 12/15/23
17 days	Mon 12/18/23	Fri 1/12/24
2 days	Thu 12/25/23	Fri 12/26/23
1 day	Mon 1/1/24	Mon 1/1/24
0 days	Fri 1/12/24	Fri 1/12/24

Count of Models posted

19 PF Models/9 SC Models

19 PF Models

19 PF Models

19 PF Models

0 days	Fri 1/12/24	Fri 1/12/24
1 day	Mon 1/15/24	Mon 1/15/24
10 days	Mon 1/15/24	Mon 1/29/24
5 days	Mon 1/15/24	Fri 1/19/24
5 days	Mon 1/22/24	Fri 1/26/24
0 days	Fri 1/26/24	Fri 1/26/24
5 days	Mon 1/29/24	Mon 2/2/24
0 days	Fri 2/2/24	Fri 2/2/24
31 days	Mon 1/29/24	Fri 2/23/24
0 days	Mon 2/19/24	Mon 2/19/24
10 days	Mon 1/29/24	Fri 2/9/24
0 days	Fri 2/9/24	Fri 2/9/24
5 days	Mon 2/12/24	Fri 2/16/24
5 days	Mon 2/19/24	Fri 2/23/24
0 days	Fri 2/23/24	Fri 2/23/24
35 days	Mon 2/26/24	4/12/2024
10 days	Mon 2/26/24	Fri 3/8/24
0 days	Fri 3/8/24	Fri 3/8/24
10 days	Mon 3/11/24	Fri 3/22/24
0 days	Fri 3/22/24	Fri 3/22/24
5 days	Mon 3/25/24	Fri 3/29/24
0 days	Fri 3/29/24	Fri 3/29/24
5 days	Mon 4/1/24	Fri 4/5/24
0 days	Fri 4/5/24	Fri 4/5/24
5 days	Mon 4/8/24	Fri 4/12/24
0 days	Fri 4/12/24	Fri 4/12/24
0 days	Mon 4/15/2024	Mon 4/15/2024
0 days	Mon 4/15/2024	Mon 4/15/2024
0 days	TBD	TBD
0 days	TBD	TBD
2 days	June TBD	June TBD

19 PF Models

9 SC Models

31 PF Models/9 SC Models

17 PF Models

17 PF Models

6 SC Models

the weekend until Monday at 8:00 AM. If that the schedule, if the SPP Models On Demand riods identified in the Schedule.

Model Build Schedule Color Identifier
Orange: SPP Staff Lock Down Model on Demand and Engineering Data Submission Tool
Green: Data Submitters Review
Red: Data Submitters Updates Due
Black: SPP PowerFlow Build
Blue: Short Circuit Build
<i>Black Italic: SPP Posting or Pass Completion</i>
Purple: MDAG Potential Face-to-Face Meeting
<i>Green Italic: Final SPP Staff / Member Conference Call Vote and Approval</i>

2024 Series MDAG/2025 ITP Model Selection
Red: MMWG Models
Black: MDAG and ITP Models- Posted on GlobalScape

Abbreviation
MDAG PF
MDAG SC
MDAG DYN
ITP BR PF
ITP MPM F1
ITP MPM F2
ITP MEM F1
ITP MEM F2
ITP BR SC

Description
MDAG Powerflow
MDAG Short Circuit
MDAG Dynamics
ITP Base Reliability Powerflow
ITP MPM Future 1 (TBD)
ITP MPM Future 2 (TBD)
ITP MEM Future 1
ITP MEM Future 2
ITP Base Reliability Short Circuit

Year Definition	2024 Series MDA				
	Year	Season	MDAG PF	MDAG SC	MDAG DYN
1	2025	Light Load	1		1
1	2025	Spring	1		
1	2025	Summer	1	1	1
1	2025	Fall	1		
1	2025	Winter	1		1
2	2026	Light Load	1		1
2	2026	Spring	1		
2	2026	Summer	1		1
2	2026	Fall			
2	2026	Winter	1		
3	2027	Light Load	1		
3	2027	Summer	1		1
5	2029	Light Load	1		1
5	2029	Summer	1	1	1
5	2029	Summer Shoulder	1		
5	2029	Winter	1		1
10	2034	Light Load			
10	2034	Summer	1		1
10	2034	Winter	1		1
Total		63	17	2	11

G / 2025 ITP Model Selection					
ITP BR PF	ITP MPM F1 (TBD)	ITP MPM F2 (TBD)	ITP MEM F1	ITP MEM F2	ITP BR SC
1	1				
1					
1					
1	1				
1					
1	1		1		1
1					
1					
1	1	1			
1	1	1	1	1	1
1					
1	1	1			
1	1	1	1	1	1
1					
14	7	4	3	2	3

2024 MDAG / 2025 ITP Mod		
Year	Season	Load Profile
2025	Light Load	Yes
2025	Spring	Yes
2025	Summer	Yes
2025	Fall	Yes
2025	Winter	Yes
2026	Light Load	Yes
2026	Spring	Yes
2026	Summer	Yes
2026	Fall	Yes
2026	Winter	Yes
2027	Light Load	Yes
2027	Summer	Yes
2029	Light Load	Yes
2029	Summer	Yes
2029	Summer Shoulder	Yes
2029	Winter	Yes
2034	Light Load	Yes
2034	Summer	Yes
2034	Winter	Yes

