

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

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

Conference Call

SUMMARY OF MOTIONS AND ACTION ITEMS

Action Items:

- ***Action Item: SPP Staff to verify SLG faults can be run on the TPL dynamics cases***
- ***Action Item: SPP Staff to send out a link to the latest CPP Scope document and Technical document.***
- ***Action Item: SPP Staff to follow up with GI to provide an answer to MDAG on what the current process steps should be.***
- ***Action Item: SPP Staff to follow up on Evergy request related to impedance changes between planned and as-built values.***
- ***Action Item: WAPA staff to work on generating examples for TOPTE projects.***
- ***Action Item: AEP Staff to send in request DocuCode checks to be added. These checks would then be run through the FG***

Motions:

- **Motion: Scott Schichtl motioned to approve the agenda as presented on the screen. Reene Miranda seconded the motion. The motion passed unanimously.**
- **Motion: Nathan Davis motioned to approve the November 14th meeting minutes as shown on the screen. Alex Mucha seconded the motion. The motion passed unanimously.**
- **Motion: Mike Swan motioned to approve the 2024 MDAG for 2025 TPL Stability model set, contingent upon the two updates provided being applied to the cases. Reene Miranda seconded the motion. The motion passed unanimously.**
- **Motion: Jason Shook motioned to approve the updated 2025 MDAG / 2026 ITP schedule as shown. Ryan Baysinger seconded the motion. The motion passed unanimously.**

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

December 12, 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 Interim Chair, Brianna Haug, called the meeting to order at 9:01 a.m. (CST) with Quorum. SPP Staff Secretary, Zach Sabey, 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	X			Oklahoma Municipal Power Authority
Brianna Haug	X			Western Area Power Administration, MDAG Interim Chair
Dustin Betz	X			Nebraska Public Power District
Jason Shook	X			GDS Associates
Jerry Bradshaw	X			City Utilities of Springfield
Jesse Kreutzfeldt	X			Missouri River Energy Services
Joe Fultz				Grand River Dam Authority
John Vara		David Mendoza	X	Golden Spread Electric
Liam Stringham	X			Sunflower Electric Power Corporation
Mike Swan	X			Omaha Public Power District
Nathan Davis	X			Liberty Utilities
Preston Blinsky	X			Basin Electric Power Cooperative
Reené Miranda	X			Southwestern Public Service
Ryan Baysinger	X			Evergy
Scott Rainbolt	X			American Electric Power
Scott Schichtl	X			Arkansas Electric Cooperative Corporation
Timothy Sell	X			ITC Holdings
Tyler Baxter	X			Corn Belt Power Cooperative
Zach Sabey	X			Southwest Power Pool, Inc., MDAG Secretary

Material: DEC12_Attach2 - 1c. MDAG Conference Call Attendance.xlsx

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

Brianna Haug, MDAG Interim Chair, asked the group if they had a chance to review the agenda and if the group had any modifications to the agenda.

Motion: Scott Schichtl motioned to approve the agenda as presented on the screen. Reene Miranda seconded the motion. The motion passed unanimously.

Material: DEC12_Attach1- 1e. MDAG Meeting Agenda.docx

AGENDA ITEM 1F – PREVIOUS NOVEMBER 14TH, MEETING MINUTES (**APPROVAL ITEM**)

SPP Staff, Zach Sabey, asked the group if they had any proposed changes for the previous meeting minutes on November 14th, 2024.

Motion: Nathan Davis motioned to approve the November 14th meeting minutes as shown on the screen. Alex Mucha seconded the motion. The motion passed unanimously.

Material: DEC12_Attach3- 1f. November 2024 Meeting Minutes.pdf

AGENDA ITEM 2 – REVIEW OF PAST ACTION ITEMS

SPP staff, Zach Sabey, walked the group through past action items:

- Item # 213 - *FYAE wind dispatch inclusion into the MDAG Model Development Procedure Manual*: Manual language updates will be brought to MDAG FG at the January FG call.
- Item # 214 - *Unrealistic QMAX and QMIN*: SPP Staff met with Evergy and AEP to discuss issues noted. SPP will work on member outreach to GOs with Qmax set to 0. SPP working on updating DocuCheck automation to allow for D-curve with zero-value for Qmin/Qmax when Pgen=0.
 - David Zhong (AEP) - Conventional Generators in AEP's area have the QMAX reset to zero or some variable value. When running results, the voltages are off.
 - Scott Rainbolt (AEP) - Conventional Generators set to zero
 - Ryan Baysinger (Evergy) - When you start including dynamic capability curves and there is a value of zero.

AGENDA ITEM 3 – MDAG CHAIR UPDATE

SPP staff, Zach Sabey, informed MDAG of John Turners resignation from the MDAG Chair seat, effective immediately. A nomination window is open until January 17th.

AGENDA ITEM 4 – 2024 MDAG FOR 2025 TPL STABILITY DYNAMIC MODEL SET (APPROVAL ITEM)

SPP staff, Zach Sabey, presented the proposed 2025 TPL Dynamics Model set.

Reene Miranda asked if there was a possibility to submit post-processing style updates. Zach Sabey will post a post-processing folder with the approved model set.

Mike Swan asked if the ability to run a Single-Line-to-Ground (SLG) fault had been fixed in the cases. Zach Sabey stated that the issue was corrected in the September time-frame for the MDAG Dynamic model set but would also verify this to be the case.

MOTION: Mike Swan motioned to approve the 2024 MDAG for 2025 TPL Stability model set, contingent upon the two updates provided being applied to the cases. Reene Miranda seconded the motion. The motion passed unanimously.

Material: DEC12_Attach4 - 4. 2024 series MDAG Model Build_2025 TPL Recommendation.pptx

AGENDA ITEM 5 – 2025 MDAG / 2026 ITP SCHEDULE UPDATE (APPROVAL ITEM)

SPP Staff, John O'Dell, gave an update on the 2025 MDAG / 2026 ITP schedule.

MOTION: Jason Shook motioned to approve the updated 2025 MDAG / 2026 ITP schedule as shown. Ryan Baysinger seconded the motion. The motion passed unanimously.

Material: DEC12_Attach4 - 5. 5. 2025 MDAG 2026 ITP schedule update.pptx

AGENDA ITEM 6 – SCRIPT C3 UPDATE

SPP Staff, Eddie Watson, gave the group the latest update on SCRIPT C3.1 - C3.5. There was a question from the group for clarification on the expectation for MDAG for building the B-GEMs, T-GEMs, and L-GIMs. SPP Staff to build based off data provided from MDAG on the other existing models. The CPP Scope will provide the number of models that will be built.

- **Action Item: SPP Staff to send out a link to the latest CPP Scope document and Technical document.**

Material: 6. SCRIPT C3 Common Model Update_Updated based on 12-06-2024 CPPTF & 12-11-2024 TWG-ESWG.pptx

AGENDA ITEM 7 – RR452 – TO PROJECT EVALUATION PROCESS LANGUAGE CLARIFICATION

MDAG Interim Chair/WAPA Staff, Brianna Haug, presented information to the group regarding RR452.

Reene Miranda asked what process it would flow through if the TO is requesting to move the POI of a signed GIA – does this go back through GI or does it go through TOPTTE?

- **Action Item: SPP Staff to follow up with GI to provide an answer to MDAG on what the current process steps should be.**
- **Action Item: SPP Staff to follow up on Evergy request related to impedance changes between planned and as-built values.**

AGENDA ITEM 8 – QMAX / QMIN DOCUCHECK

AEP Staff, David Zhong, presented an update on the Qmax / Qmin checks in DocuCheck and the issues they have seen.

AEP staff to take the specific checks requested to the MDAG FG for review and development.

AGENDA ITEM 9 – 2025 SERIES MODEL BUILD / APPLICATION UPDATES

AGENDA ITEM 9A – POWERFLOW

SPP Staff, Eric Sullivan, presented an update for the 2026 ITP BR model set.

AGENDA ITEM 9B – SHORT CIRCUIT

SPP Staff, Eric Sullivan, presented an update for the 2026 ITP Short Circuit model set.

AGENDA ITEM 9C – MOD-033

SPP Staff, Eric Sullivan, presented an update for the MOD-033 model process and the Unacceptable Differences posting and review.

AGENDA ITEM 10 – MDAG FG UPDATE

Kristie Brown, SPP Staff, provided an update on the MDAG FG.

AGENDA ITEM 11 – SUMMARY OF ACTION ITEMS

Zach Sabey, SPP Staff, indicated the following new action item from this meeting.

- **Action Item: SPP Staff to verify SLG faults can be run on the TPL dynamics cases**
- **Action Item: SPP Staff to send out a link to the latest CPP Scope document and Technical document.**
- **Action Item: SPP Staff to follow up with GI to provide an answer to MDAG on what the current process steps should be.**
- **Action Item: SPP Staff to follow up on Evergy request related to impedance changes between planned and as-built values.**
- **Action Item: WAPA staff to work on generating examples for TOPTE projects.**
- **Action Item: AEP Staff to send in request DocuCode checks to be added. These checks would then be run through the FG**

AGENDA ITEM 12 – DISCUSSION OF FUTURE MEETINGS

Brianna Haug, MDAG Vice Chair, updated the group on upcoming meetings.

- a. MDAG: December 12, 2024 (9:00 AM – 12:00 PM)
- b. MDAG Focus Group: No Focus Group Meeting for December
- c. AARITF: December 2, 2024 (9:00 AM – 11:00 AM)
- d. TATE TF: No Meeting for the Month of December
- e. TWG: December 10, 2024 (9:00 AM – 3:00 PM)
 - i. December 11, 2024 (9:00 AM – 3:00 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 13 – ADJOURN

Brianna Haug, MDAG Interim Chair, adjourned the meeting at 11:53 AM (CST)

Respectfully Submitted,

Zach Sabey
Staff Secretary

Kristie Brown
Secretary Assistant

Attachments

DEC12_Attach1- 1e. MDAG Meeting Agenda.docx

DEC12_Attach2 - 1c. MDAG Conference Call Attendance.xlsx

DEC12_Attach3- 1f. November 2024 Meeting Minutes.pdf

DEC12_Attach4 - 4. 2024 series MDAG Model Build_2025 TPL Recommendation.pptx

DEC12_Attach5 - 5. 5. 2025 MDAG 2026 ITP schedule update.pptx

DEC12_Attach6 - 6. SCRIPT C3 Common Model Update_Updated based on 12-06-2024 CPPTF & 12-11-2024 TWG-ESWG.pptx



SOUTHWEST POWER POOL, INC.

MODEL DEVELOPMENT ADVISORY GROUP MEETING

December 14, 2023

Conference Call

9:00 a.m. – 12:00 p.m. (CST)

AGENDA

- 1. Administrative Items..... Brianna Haug (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 November Meeting Minutes (**Approval Item**)
- 2. Review of Past Action Items Zach Sabey (5 mins)
- 3. MDAG Chair Update..... Zach Sabey (5 mins)
- 4. 2024 MDAG for 2025 TPL Stability (**Approval Item**)
 - a. Dynamics Zach Sabey/Theo Brown (20 mins)
- 5. 2025 / 2026 MDAG and ITP Schedule correction (**Approval Item**) John O’Dell (15 mins)
- 6. Script C3 Update..... Eddie Watson (30 mins)
- 7. RR452 Discussion..... Brianna Haug (30 mins)
- 8. Qmax/Qmin Docucheck..... David Zhong / SPP Staff (20 mins)
- 9. 2025 series Model Build/Application Updates
 - a. Powerflow Eric Sullivan (10 mins)
 - b. Short Circuit Eric Sullivan (5 mins)
 - c. MOD-033 Eric Sullivan (5 mins)
- 10. MDAG FG Update..... Kristie Brown (5 mins)
- 11. Summary of Action Items..... Zach Sabey (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.

- a. Agenda Review – additional comments request

12. Discussion of Future Meetings Brianna Haug (5 mins)

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

- a. MDAG: January 23, 2025 (9:00 AM – 12:00 PM)
- b. MDAG Focus Group: January 21, 2025 (1:00 PM – 3:00 PM)
- c. TWG: January 27, 2024 (9:00 AM – 5:00 PM)
 - i. January 28, 2024 (9:00 AM – 5:00 PM)
- d. CPPTF: January 21, 2025 (12:00 PM – 5:00 PM)
 - i. January 22, 2025 (8:00 AM – 12:00 PM)
- e. Joint CPPTF-ESWG: January 2, 2025 (10:00 AM – 5:00 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](#)

13. Adjourn All

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

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

November 14, 2024, 9:00 am – 12:00 pm (CST)

Conference Call

SUMMARY OF MOTIONS AND ACTION ITEMS

Action Items:

- **Action Item: Due to time constraints, RR452 discussion will continue at the December meeting**
- **Action Item: The QMAX/QMIN Docucheck topic will be addressed during the December meeting to gather more details on the requested changes**

Motions:

- **Motion: Reene Miranda motioned to approve the agenda as presented on the screen. Mike Swan seconded the motion. The motion passed unanimously.**
- **Jason Shook motioned to approve the October 17th meeting minutes as shown on the screen. Jesse Kreutzfeldt seconded the motion. The motion passed unanimously.**
- **Motion: Mike Swan motioned to approve the 2025 MDAG Dynamics Model Build Schedule as shown. Ryan Baysinger seconded the motion. The motion passed unanimously.**

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

November 14, 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 9:01 a.m. (CST) with Quorum. SPP Staff, 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	N			Grand River Dam Authority
John Turner	Y			Western Farmers Electric Power, MDAG Chair
John Vara	N	David Mendoza	Y	Golden Spread Electric
Liam Stringham	Y			Sunflower Electric Power Corporation
Mike Swan	Y			Omaha Public Power District
Nathan Davis	Y			Liberty Utilities
Preston Blinsky	Y			Basin Electric Power Cooperative
Reené Miranda	Y			Southwestern Public Service
Ryan Baysinger	Y			Evergy
Scott Rainbolt	Y			American Electric Power
Scott Schichtl	N	Josh Hesselbein	Y	Arkansas Electric Cooperative Corporation
Timothy Sell	N			ITC Holdings
Tyler Baxter	N	Neil Smith	Y	Corn Belt Power Cooperative
Zach Sabey	N	Eric Sullivan	Y	Southwest Power Pool, Inc., MDAG Secretary

Material: NOV14_Attach2 - 1c. MDAG Conference Call Attendance.xlsx

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: Reene Miranda motioned to approve the agenda as presented on the screen. Mike Swan seconded the motion. The motion passed unanimously.

Material: NOV14_Attach1- 1e. MDAG Meeting Agenda.docx

AGENDA ITEM 1F – PREVIOUS OCTOBER 17TH, MEETING MINUTES (**APPROVAL ITEM**)

SPP Staff, Eric Sullivan, asked the group if they had any proposed changes for the previous meeting minutes on October 17th, 2024.

Motion: Jason Shook motioned to approve the October 17th meeting minutes as shown on the screen. Jesse Kreutzfeldt seconded the motion. The motion passed unanimously.

Material: NOV14_Attach3- 1f. October 2024 Meeting Minutes.pdf

AGENDA ITEM 2 – REVIEW OF PAST ACTION ITEMS

SPP staff, Eric Sullivan, walked the group through past action items:

- Action Item 213 (FYAE wind dispatch inclusion into the MDAG Model Development Procedure Manual): Manual language updates will be on the agenda at the MDAG January 21 Focus Group call.
- Action Item 214 (Unrealistic QMAX/QMIN) was added from the MDAG Focus Group action item list to get more information on the requirements. This item will be a topic added to the December MDAG Meeting agenda.

AGENDA ITEM 3 – 2025 MDAG DYNAMICS SCHEDULE (APPROVAL ITEM)

SPP staff, Theo Brown, presented the proposed 2025 MDAG Dynamics Model Build Schedule.

MOTION: Mike Swan motioned to approve the 2025 MDAG Dynamics Model Build Schedule as shown. Ryan Baysinger seconded the motion. The motion passed unanimously.

Material: NOV14_Attach4 - 3. 2025 Series MDAG & 2026 TPL Dynamics Model Build Schedule and Selection_Draft_1.1.xlsx

AGENDA ITEM 4 – SPP ANNUAL PRIORITIZATION

SPP Staff, Mark Hodges, gave an overview of the SPP Annual Prioritization. A question was asked from the group regarding the definition of which initiatives would fall under the roadmap process. Mark indicated that initiatives that support a long-term view through the [ASPIRE strategic plan](#) or help support the organization's goals. If there are any additional questions regarding the process, SPP Staff, Ashley Sanders, encouraged the group to contact their team via strategicservices@spp.org.

AGENDA ITEM 5 – SCRIPT C3 UPDATE

SPP Staff, Eddie Watson, gave the group the latest update on SCRIPT C3.1 - C3.5. Below are a few questions and comments from the group:

- *Will the MDAG models be eliminated with this initiative?* ITP models (common model) will continue to be developed. MDAG will be used for the MMWG input models.
- *With the addition of the MEM Load and Gen data to EDST, will this replace the process of adding data to MOD?* The MEM Gen and Load is only Economic specific. Powerflow data submissions will continue as today and will have no changes.

- *Has a date been determined for the NMM Implementation (MOD Replacement) and how does it relate to SCRIPT?* Development is still underway by Siemens on this product. SPP Staff feel that further development needs to take place and NMM should have all existing MOD functionality before considering an implementation date.
- *Will the recently approved Renewable Dispatched policy (FYAE Wind Dispatch) be included for C3.2 Dispatch Assumptions?* Yes

AGENDA ITEM 6 – BREAK

AGENDA ITEM 7 – RR452 – TO PROJECT EVALUATION PROCESS LANGUAGE CLARIFICATION

MDAG Vice-Chair/WAPA Staff, Brianna Haug, presented information to the group regarding RR452. SPP Staff, Matt Jackson, was available again to answer any questions regarding the process. Many in the group had questions surrounding projects that are non-material and non-asset management. They did not see the need for a Sponsored Upgrade Study. Another question was asked regarding how projects with greater than 30% impedance change would be handled. Matt Jackson said he would follow up with more information. He also suggested an RMS ticket should be opened for any additional questions outside of this meeting. This will ensure that the question is properly addressed to the correct staff.

- Follow Up Item #1: Matt Jackson to follow up with WAPA Staff, Brianna Haug, regarding the handling of projects with >30% change regarding impedances.

AGENDA ITEM 8 – 2024 MDAG FOR 2025 TPL STABILITY UPDATE

SPP Staff, Theo Brown, presented an update for the 2025 TPL Stability Models.

AGENDA ITEM 9 – 2025 SERIES MODEL BUILD / APPLICATION UPDATES

AGENDA ITEM 9A – POWERFLOW

SPP Staff, Danielle Lorenz and Hugh Benfer, presented an update for the 2026 ITP BR model set. During the discussion for the cutoff period to accept data submissions via MOD and EDST for the current model build year, the group agreed to allow submissions through the ITP BR Initial Final Phase/MDAG Pass 1. This clears up the contradiction on the current schedule regarding the last day to accept prior to moving to IDEV only submissions. During this topic, SPS Staff, Reese Miranda, had a question on how SPP Staff handle obtaining data for generator replacement units. Hugh will check and follow up. Also, Hugh informed the group that once NTCs are issued later this year in December, SPP Staff will reach out to the entities who received an NTC for data submissions into MOD/EDST.

- Follow Up Item: Hugh Benfer to reach out to SPS Staff, Reene Miranda, regarding the process for obtaining data on Generator replacement units.

Material: NOV14_ATTACH5 - 9A. 2025 SERIES POWERFLOW UPDATE.PPTX

AGENDA ITEM 9B – SHORT CIRCUIT

SPP Staff, Jacob Lagrange, presented an update for the 2026 ITP Short Circuit model set.

AGENDA ITEM 9C – MOD-033

SPP Staff, Eric Sullivan, presented an update for the MOD-033 model process and the Unacceptable Differences posting and review.

AGENDA ITEM 10 – SUMMARY OF ACTION ITEMS

Eric Sullivan, SPP Staff, indicated the following new action item from this meeting.

- ***Action Item: Due to time constraints, RR452 discussion will continue at the December meeting***
- ***Action Item: The QMAX/QMIN Docucheck topic will be addressed during the December meeting to gather more details on the requested changes***

AGENDA ITEM 11 – DISCUSSION OF FUTURE MEETINGS

Brianna Haug, MDAG Vice Chair, updated the group on upcoming meetings.

- a. MDAG: December 12, 2024 (9:00 AM – 12:00 PM)
- b. MDAG Focus Group: No Focus Group Meeting for December
- c. AARITE: December 2, 2024 (9:00 AM – 11:00 AM)
- d. TATE TF: No Meeting for the Month of December
- e. TWG: December 10, 2024 (9:00 AM – 3:00 PM)
 - i. December 11, 2024 (9:00 AM – 3:00 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 13 – ADJOURN

John Turner, MDAG Chair, adjourned the meeting at 11:52 AM (CST)

Respectfully Submitted,

Zach Sabey
Staff Secretary

Kristie Brown
Secretary Assistant

Attachments

NOV14_Attach1- 1e. MDAG Meeting Agenda.docx

NOV14_Attach2 - 1c. MDAG Conference Call Attendance.xlsx

NOV14_Attach3- 1f. October 2024 Meeting Minutes.pdf

NOV14_Attach4 - 3. 2025 Series MDAG & 2026 TPL Dynamics Model Build Schedule and Selection_Draft_1.1.xlsx

NOV14_Attach5 - 9a. 2025 series Powerflow Update.pptx



SOUTHWEST POWER POOL, INC.

MODEL DEVELOPMENT ADVISORY GROUP MEETING

November 14, 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 October Meeting Minutes (**Approval Item**)
2. Review of Past Action Items Eric Sullivan (5 mins)
3. 2025 MDAG Dynamics Schedule (**Approval Item**)*Theo Brown (20 mins)
4. SPP Annual Prioritization Mark Hodges (30 mins)
5. Script C3 Update.....Eddie Watson (20 mins)
6. Break (5 mins)
7. RR452 - TO Project Evaluation Process language clarification..... Brianna Haug (45 mins)
8. 2024 MDAG for 2025 TPL Stability Update..... Theo Brown (10 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.

- 9. 2025 series Model Build/Application Updates
 - a. Powerflow Danielle Lorenz/Eric Sullivan (15 mins)
 - b. Short Circuit Jacob Lagrange (5 mins)
 - c. MOD-033 Eric Sullivan (5 mins)
- 10. Summary of Action Items..... Eric Sullivan (5 mins)
 - a. Agenda Review – additional comments request
- 11. 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: December 12, 2024 (9:00 AM – 12:00 PM)
- b. MDAG Focus Group: January 21, 2024 (1:00 PM – 3:00 PM)
- c. AARITF: December 2, 2024 (9:00 AM – 11:00 AM)
- d. TATE TF: November 19, 2024 (1:30 PM – 3:30 PM)
- e. TWG: December 10, 2024 (9:00 AM – 3:00 PM)
 - i. December 11, 2024 (9:00 AM – 3:00 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](#)

- 12. Adjourn..... All

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

SOUTHWEST POWER POOL
MODEL DEVELOPMENT ADVISORY GROUP MEETING

October 17, 2024, 9:00 am – 12:00 pm (CST)

Conference Call

SUMMARY OF MOTIONS AND ACTION ITEMS

Action Items:

- ***Action Item: Bring the approved FYAE wind dispatch to the FG to make any required manual updates ahead of the 2026 MDAG / 2027 ITP model build.***

Motions:

- **Motion: John Vara motioned to approve the agenda as amended. Nathan Davis seconded the motion. The motion passed unanimously.**
- **Motion: Jesse Kreutzfeldt motioned to approve the September 19th meeting minutes as shown on the screen. Preston Blinsky seconded the motion. The motion passed unanimously.**
- **MOTION: Nathan Davis motioned to approve John Turner to remain as the chair of the Model Development Advisory Group for the term beginning January 2025. Jesse Kreutzfeldt seconded the motion. The motion passed unanimously.**
- **MOTION: Liam Stringham motioned to approve for MDAG to utilize the 5-Year Average Enhancement (FYAE) from the RADTF in future powerflow model builds. Jesse Kreutzfeldt seconded the motion. The motion passed unanimously.**

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

October 17, 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 Vice Chair, Brianna Haug, called the meeting to order at 9:00 a.m. (CST) with Quorum. SPP Staff Secretary, Zach Sabey, 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				Oklahoma Municipal Power Authority
Brianna Haug	X			Western Area Power Administration, MDAG Vice-Chair
Dustin Betz	X			Nebraska Public Power District
Jason Shook				GDS Associates
Jerry Bradshaw	X			City Utilities of Springfield
Jesse Kreutzfeldt	X			Missouri River Energy Services
Joe Fultz	X			Grand River Dam Authority
John Turner	X			Western Farmers Electric Power, MDAG Chair
John Vara	X			Golden Spread Electric
Liam Stringham	X			Sunflower Electric Power Corporation
Mike Swan	X			Omaha Public Power District
Nathan Davis	X			Liberty Utilities
Preston Blinsky	X			Basin Electric Power Cooperative
Reené Miranda	X	Antonio Barrera	X	Southwestern Public Service
Ryan Baysinger	X			Evergy
Scott Rainbolt	X			American Electric Power
Scott Schichtl	X			Arkansas Electric Cooperative Corporation
Timothy Sell	X			ITC Holdings
Tyler Baxter	X			Corn Belt Power Cooperative
Zach Sabey	X			Southwest Power Pool, Inc., MDAG Secretary

Material: OCT17_Attach2 - 1c. MDAG Conference Call Attendance.xlsx

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

Brianna Haug, MDAG Vice Chair, asked the group if they had a chance to review the agenda and if the group had any modifications to the agenda.

John Vara referenced to correct "Previous August Meeting Minutes" to read "Previous September Meeting Minutes"

Motion: John Vara motioned to approve the agenda as amended. Nathan Davis seconded the motion. The motion passed unanimously.

Material: OCT17_Attach1- 1e. MDAG Meeting Agenda.docx

AGENDA ITEM 1F – PREVIOUS SEPTEMBER 19TH, MEETING MINUTES (**APPROVAL ITEM**)

Zach Sabey asked the group if they had any proposed changes for the previous meeting minutes on September 19th, 2024.

Motion: Jesse Kreutzfeldt motioned to approve the September 19th meeting minutes as shown on the screen. Preston Blinsky seconded the motion. The motion passed unanimously.

Material: OCT17_Attach3- 1f. September 2024 Meeting Minutes.pdf

AGENDA ITEM 2 – REVIEW OF PAST ACTION ITEMS

SPP staff, Zach Sabey, walked the group through past action items. The group agreed that Action Item 212 (MOD-033 Ratings in the EMS case) could be moved to Completed.

AGENDA ITEM 3 – MDAG CHAIR (APPROVAL ITEM)

SPP staff, Zach Sabey, informed MDAG of the MDAG Chair Nomination for John Turner.

MOTION: Nathan Davis motioned to approve John Turner to remain as the chair of the Model Development Advisory Group for the term beginning January 2025. Jesse Kreutzfeldt seconded the motion. The motion passed unanimously.

Material: OCT17_Attach4 - 3. MDAG Chair.pptx

AGENDA ITEM 4 – RENEWABLE DISPATCH PROCESS (APPROVAL ITEM)

SPP staff, Jamie Spickes, gave an overview of the new renewable dispatch process and the background behind the new numbers.

Antonio Barrera asked if the automation from this would be provided to members. Jamie mentioned that the automation would be utilized by SPP staff, but the process is more transparent and would be available for members to use.

Dustin Betz asked if the high wind or very low wind situations had been addressed. Ryan Baysinger responded that the initial look was to get a better approach set up and then these could be addressed in future efforts.

MOTION: Liam Stringham motioned to approve for MDAG to utilize the 5-Year Average Enhancement (FYAE) from the RADTF in future powerflow model builds. Jesse Kreutzfeldt seconded the motion. The motion passed unanimously.

Material: OCT17_Attach5 - 4a. Renewable Dispatch Process.pptx

AGENDA ITEM 5 – NERC UPDATES

SPP Staff, Shannon Mickens, discussed updates at the NERC level about DER and IBR activities currently on-going and where to find different reports on these topics.

AGENDA ITEM 6 – Break

AGENDA ITEM 7 – SCRIPT C3 Update

SPP Staff, Eddie Watson, walked the MDAG through the current status of SCRIPT C3.1 - C3.5.

AGENDA ITEM 8 – 2024 MDAG FOR 2025 TPL STABILITY UPDATE

SPP Staff, Zach Sabey, presented an update for the 2025 TPL Stability Models.

AGENDA ITEM 9 – FOCUS GROUP UPDATES

SPP Staff, Kristie Brown, presented the latest update for the MDAG Focus Group with a high-level preview of the next Focus Group meeting.

AGENDA ITEM 10 – 2025 SERIES MODEL BUILD / APPLICATION UPDATES

AGENDA ITEM 10A – POWERFLOW

SPP Staff, Eric Sullivan, presented an update for the 2026 ITP BR model set. Pass 3 posting will be on November 1st.

AGENDA ITEM 10B – SHORT CIRCUIT

SPP Staff, Eric Sullivan, presented an update for the 2026 ITP Short Circuit model set.

AGENDA ITEM 10C – MOD-033

SPP Staff, Eric Sullivan, presented an update for the MOD-033 model process and the Unacceptable Differences posting and review.

Reene Miranda asked if staff has created a guidance document that contains the information from the MOD-033 study. Eric responded that there is not currently a guidance document for MOD-033.

AGENDA ITEM 11 – SUMMARY OF ACTION ITEMS

Zach Sabey, Staff Secretary, indicated the following new action item from this meeting.

- ***Action Item: Bring the approved FYAE wind dispatch to the FG to make any required manual updates ahead of the 2026 MDAG / 2027 ITP model build.***

AGENDA ITEM 12 – DISCUSSION OF FUTURE MEETINGS

Brianna Haug, MDAG Vice Chair, updated the group on upcoming meetings.

- a. MDAG: November 14, 2024 (9:00 AM – 12:00 PM)
- b. MDAG Focus Group: October 22, 2024 (1:00 PM – 3:00 PM)
- c. AARITE: October 21, 2024 (9:00 AM – 11:00 AM)
 - i. November 4, 2024 (9:00 AM – 11:00 AM)
- d. TATE TE: November 19, 2024 (1:30 PM – 3:30 PM)
- e. TWG: October 29, 2024 (9:00 AM – 3:00 PM)
 - i. October 30, 2024 (9:00 AM – 3:00 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 13 – ADJOURN

Brianna Haugh, MDAG Vice Chair, adjourned the meeting at 10:50 AM (CST)

Respectfully Submitted,

Zach Sabey
Staff Secretary

Kristie Brown
Secretary Assistant

Attachments

OCT17_Attach1- 1e. MDAG Meeting Agenda.docx

OCT17_Attach2 - 1c. MDAG Conference Call Attendance.xlsx

OCT17_Attach3- 1f. September 2024 Meeting Minutes.pdf

OCT17_Attach4 - 3. MDAG Chair.pptx

OCT17_Attach5 - 4a. Renewable Dispatch Process.pptx

Task Name	Duration	Start	Finish
2025 Series MDAG Model Build Schedule (Dynamics) - PSS/E v35.6.# Note: The SPP MDAG Model Development Procedure Manual v8.1 will be utilized for this model build.	248 days	Tue 1/7/2025	Thu 12/18/2025
Initial Data Update	31 days	Tue 1/7/2025	Tue 2/18/2025
Initial Data Update - Build and Post DYRE Files, Wind Farm Data, Docureport, Most Severe TPL Fault Submission Template, and Unacceptable User Models	4 days	Tue 1/7/2025	Fri 1/10/2025
SPP Holiday -Dr. Martin Luther King Birthday Jr.	1 days	Mon 1/20/2025	Mon 1/20/2025
Initial Data Update -Members Submit Data Updates	30 days	Mon 1/13/2025	Fri 2/21/2025
Member/Stakeholder Holiday -President's Birthday	1 days	Mon 2/17/2025	Mon 2/17/2025
Initial Data Update - Member Data Due	1 days	Fri 2/21/2025	Fri 2/21/2025
Transmission Planner Most Severe TPL Fault Testing Submission Data Due - VOLUNTARY SUBMISSION	1 days	Fri 2/21/2025	Fri 2/21/2025
Dynamic Model Adjustments	20 days	Mon 2/24/2025	Fri 3/21/2025
Dynamics Adjustment (Dyre file, CMLD Load and User Defined Model Update)	20 days	Mon 2/24/2025	Fri 3/21/2025
Latest MMWG and MDAG Series Models	1 days	Fri 3/21/2025	Fri 3/21/2025
MMWG Dynamic Models	1 days	Fri 3/21/2025	Fri 3/21/2025
Receive 2025 MDAG Powerflow Pass 2 Models	1 days	Fri 3/21/2025	Fri 3/21/2025
Powerflow Model Adjustments	15 days	Mon 3/24/2025	Fri 4/11/2025
Powerflow Adjustments, Updates, Wind Farm Topology, X-Source (with Pass 2 models)	10 days	Mon 3/24/2025	Fri 4/4/2025
Receive 2025 MDAG Powerflow Final Models	1 days	Fri 4/4/2025	Fri 4/4/2025
Powerflow Adjustments, Updates, Wind Farm Topology, X-Source (with Final models)	5 days	Mon 4/7/2025	Fri 4/11/2025
Dynamic Case Initialization	35 days	Mon 4/14/2025	Fri 5/30/2025
DC Tie Model Updates - Deadline only for members who have ownership in a DC tie	1 days	Mon 4/14/2025	Mon 4/14/2025
Case & Dyre File Corrections based on Initialization Messages	35 days	Mon 4/14/2025	Fri 5/30/2025
Build Initial Models	40 days	Mon 6/2/2025	Fri 7/25/2025
No-fault Testing	10 days	Mon 6/2/2025	Fri 6/13/2025
Disturbance Testing	11 days	Fri 6/13/2025	Fri 6/27/2025
Command Line Testing	6 days	Fri 6/27/2025	Fri 7/4/2025
SPP Holiday - Fourth of July	1 days	Fri 7/4/2025	Fri 7/4/2025
Transmission Planner Submitted Most Severe TPL Fault Testing	11 days	Fri 7/4/2025	Fri 7/18/2025
Offline Wind Initialization	6 days	Fri 7/18/2025	Fri 7/25/2025
Dynamic Case Review and Finalization	12 days	Fri 7/25/2025	Mon 8/11/2025
Post Initial Models	2 days	Fri 7/25/2025	Mon 7/28/2025
Member Review of Initial Models	11 days	Mon 7/28/2025	Mon 8/11/2025
Member Final Data Submission Due	1 days	Mon 8/11/2025	Mon 8/11/2025
Data Update - Build Updated Models	28 days	Tue 8/12/2025	Thu 9/18/2025
Build Final Models	17 days	Tue 8/12/2025	Wed 9/3/2025
SPP Holiday - Labor Day	1 days	Mon 9/1/2025	Mon 9/1/2025
Post Proposed Final MDAG Models	1 days	Wed 9/3/2025	Wed 9/3/2025
Member Review of Proposed Final MDAG Dynamic Models	10 days	Thu 9/4/2025	Wed 9/17/2025
MDAG Finalization - Conference Call Vote	1 days	Thu 9/18/2025	Thu 9/18/2025
TPL Data Update - Build TPL Models	80 days	Fri 8/29/2025	Thu 12/18/2025
TPL Sensitivity Dispatch	21 days	Fri 8/29/2025	Fri 9/26/2025
TPL Data Update - Build Final Models including Board Decisions (NTC addition/withdrawals)	44 days	Fri 9/26/2025	Wed 11/26/2025
Post Final TPL MDAG Models	1 days	Wed 11/26/2025	Wed 11/26/2025
SPP Holiday - Thanksgiving Day	2 days	Thu 11/27/2025	Fri 11/28/2025
Member Review of Final TPL MDAG Dynamic Models	12 days	Mon 12/1/2025	Tue 12/16/2025
TPL MDAG Finalization - Conference Call Vote	1 days	Thu 12/18/2025	Thu 12/18/2025

Model Build Schedule Color Identifier
Green: Data Submission Period
Red: Data Submitters Updates Due
Purple: MDAG Approval Vote

* Modeling data shall be submitted per this schedule. For data submittals due on a Friday, data submission is allowed through the weekend until Monday at 8:00 AM. If that Monday falls on a SPP Holiday, data submissions are due on Tuesday by 8:00 AM. SPP may extend the data submittal periods in the schedule, if the SPP Models On Demand and Engineering Data Submittal Tool (EDST) web portals suffer technical difficulties during the data submittal periods identified in the Schedule.



2025/2026 POWERFLOW

SPP STAFF

OVERVIEW




- Status Update
- Upcoming MDAG Deadlines & Reminders
- Schedule Update
- Questions

2024-25 SERIES POWERFLOW MODEL BUILD STATUS UPDATE – ITP PASS 3

- **Completed Tasks**
 - 2026 ITP BR Pass 3 Posting for Data Submitter Review
- **In-Progress Tasks**
 - Modeling QA
 - Contacting Data Submitters for specific P4 updates
- **Future Tasks(HIGH-LEVEL)**
 - Lock down MOD/EDST
 - Build Pass 4 models – merge with latest MMWG cases
 - Adding AG1 service to EDST

DOCUCHECK

- The data checks in this workbook are meant to aid Data Submitters in reviewing model data for accuracy, improving model/case fidelity and making sure that NERC model quality metrics are met.

Tab Color	Description
	Possible errors in the models that MUST be reviewed for accuracy
	Possible errors in the models that need be reviewed for accuracy
	Informational data to aid in Data Submitter review

UPCOMING DEADLINES & REMINDERS

- **Reminders:**

- Please review raw read and island summary
- Please review tie line information from the incorporation of the MMWG model data
- Key upcoming dates:
 - 11/25/24 - SPP Staff Lock Down MOD and EDST
 - 12/02/24 - SPP Build Pass 3 PF models
 - 12/20/24– SPP Staff Post Pass 4 PF models and DocuCode

SCHEDULE UPDATE

- Discrepancy on how data should be submitted for BR Initial Final/MDAG P1 found

2026 ITP BR INITIAL FINAL PASS/2025 MDAG Pass 1: (Final Generation Dispatch, DocuCheck Issues and Topology Updates, Voltage Schedule Review)	26 days	Mon 12/23/24	Fri 1/31/25
Data Submitters Review Pass 4 Models; Submit PF and SC corrections through Idevs only for use in the Initial Final Pass Models	12 days	Mon 12/23/24	Fri 1/10/25
SPP Holidays - Christmas Eve and Christmas Day	2 days	Tue 12/24/24	Wed 12/25/24
SPP Holidays - New Years	1 day	Wed 1/1/25	Wed 1/1/25
Data Submitters submit FINAL Generation Dispatch, DocuCheck Corrections and Topology data updates	0 days	Fri 1/10/25	Fri 1/10/25
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 MOD/EDST data entry inclusion for current modeling series.	0 days	Fri 1/10/2025	Fri 1/10/2025
SPP Staff Build/Solve Initial Final Pass ITP BR Powerflow Models and apply MOD System Alteration Projects, non-firm transactions, dispatch and solve Initial MDAG Models	9 days	Mon 1/13/25	Fri 1/24/25
MLK day	1 Day	Mon 1/20/25	Mon 1/20/25
SPP Staff Review/Build Initial Final Pass ITP BR Short Circuit Models	5 days	Mon 1/27/25	Fri 1/31/25
SPP Staff Post ITP BR Initial Final PF, MDAG Pass 1 PF and ITP BR Short Circuit models and DocuCode for Data Submitter Review	0 days	Fri 1/31/25	Fri 1/31/25

- SPP would propose that members continue submitting data for BR Initial Final and MDAG P1 in MOD and EDST
- The .idv only pass would be MDAG P2



QUESTIONS?



2024 MDAG DYNAMICS MODEL BUILD UPDATE

ZACH SABEY, PE

THEO BROWN



2024 SERIES MDAG DYNAMIC MODEL BUILD UPDATE

- Completed Tasks
 - Posted Proposed TPL Model Set (11/22)
- In-Progress Tasks
 - Review and Approval of Final TPL Models

UPDATES RECEIVED AND INCLUDED (BY 12/5/2024)

- Clearway WF dyre change update
- MIDW – clean up of old dynamic models

STAFF RECOMMENDATION

- SPP Staff recommends MDAG approve the 2025 TPL Dynamic model set, contingent upon including updated member information.
 - 2025TPL-DS35-RED-FINAL-26L.zip
 - 2025TPL-DS35-RED-FINAL-26L-SENS.zip
 - 2025TPL-DS35-RED-FINAL-26S.zip
 - 2025TPL-DS35-RED-FINAL-26S-SENS.zip
 - 2025TPL-DS35-RED-FINAL-34S.zip

QUESTIONS?



UPDATED 2025 MDAG/2026 ITP PF/SC/GMD SCHEDULE

JOHN O'DELL

*Working together to responsibly and economically
keep the lights on today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

SCHEDULE CLARIFICATION 1

Edits are in **red text**. Changes are clarification only.

SPP Staff found inconsistencies in schedule items for the Initial Final pass

- Row 39 indicates that powerflow and short-circuit corrections should be submitted through idev submissions
 - MOD and EDST are available for submission of changes

38	2026 ITP BR INITIAL FINAL PASS/2025 MDAG Pass 1: (Final Generation Dispatch, DocuCheck Issues and Topology Updates, Voltage Schedule Review)	26 days	Mon 12/23/24	Fri 1/31/25	
39	Data Submitters Review Pass 4 Models; Submit PF and SC corrections through idevs-only MOD & EDST for use in the Initial Final Pass Models	12 days	Mon 12/23/24	Fri 1/10/25	
40	SPP Holidays - Christmas Eve and Christmas Day	2 days	Tue 12/24/24	Wed 12/25/24	
41	SPP Holidays - New Years	1 day	Wed 1/1/25	Wed 1/1/25	
42	Data Submitters submit FINAL Generation Dispatch, DocuCheck Corrections and Topology data updates	0 days	Fri 1/10/25	Fri 1/10/25	
43	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 MOD/EDST data entry inclusion for current modeling series.	0 days	Fri 1/10/2025	Fri 1/10/2025	
	SPP Staff Build/Solve Initial Final Pass ITP BR Powerflow Models and apply MOD System Alteration Projects, non-firm transactions,				

SCHEDULE CLARIFICATION 2

Edits are in **red text**. Changes are clarification only.

SPP Staff wishes to clarify the method and date for approval the Initial Final pass

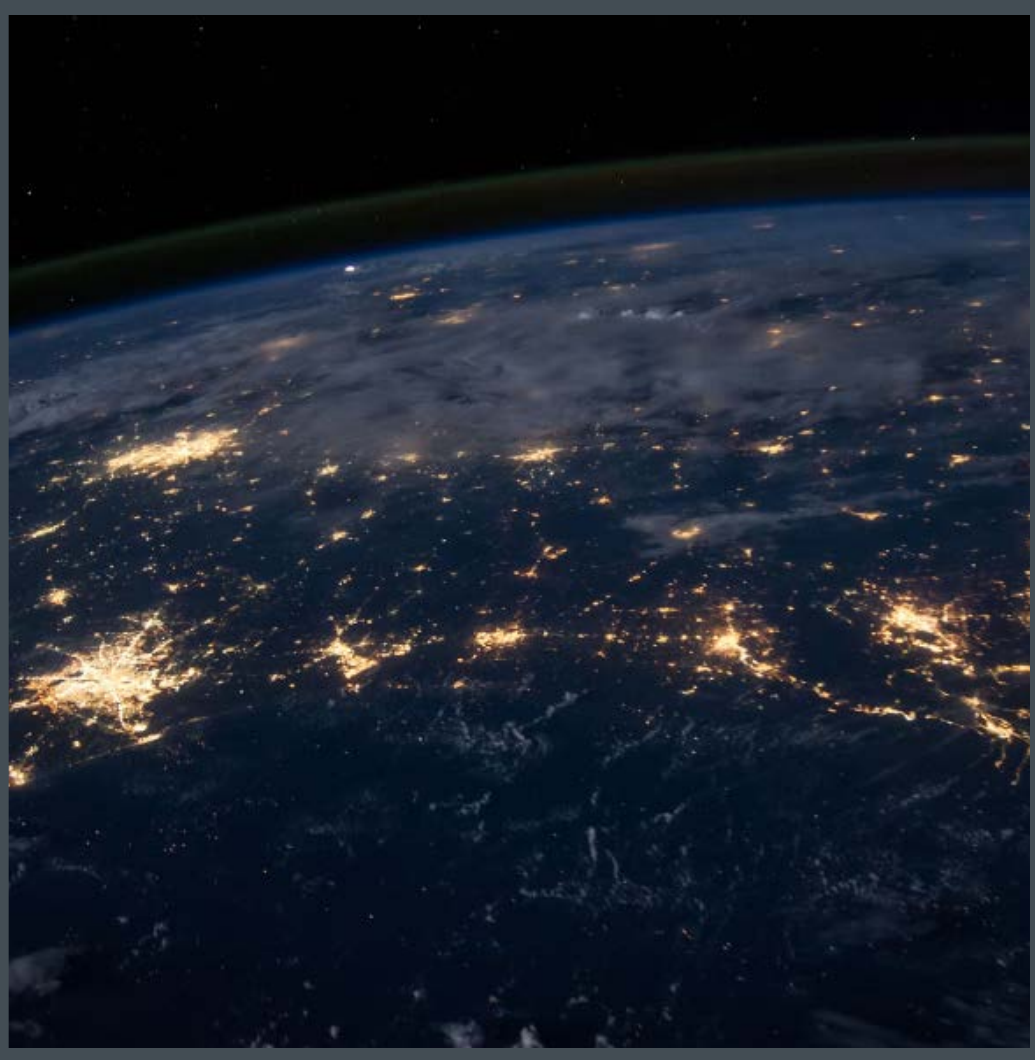
- Row 48 did not specify that TWG would approve powerflow and short-circuit in a meeting
- Previously unavailable dates added for TWG meeting

46	SPP Staff Review/Build Initial Final Pass ITP BR Short Circuit Models	5 days	Mon 1/27/25	Fri 1/31/25
47	SPP Staff Post ITP BR Initial Final PF, MDAG Pass 1 PF and ITP BR Short Circuit models and DocuCode for Data Submitter Review	0 days	Fri 1/31/25	Fri 1/31/25
48	Finalization - TWG meeting to Vote and Approve 2026 ITP Power Flow & Short Circuit Models as Initial-Final. These models will be submitted by no later than March 14, 2025 for the FERC 715 filing.	0 days	Tue 2/11/2025	Tue 2/11/2025
49	2025 MDAG Pass 2: (Generation Dispatch, System Intact Alteratons, DocuCheck Issues, Voltage Schedule Review)	35 Days	Mon 2/2/25	Fri 3/21/2025
50	Data Submitters Review MDAG Pass 1 Models; Submit PF and SC corrections through Idevs only for use in the Pass 2 MDAG Models	10 days	Mon 2/3/25	Fri 2/14/25

MOTION SLIDE

SPP Staff recommends the MDAG:

- Approve updates to the 2025 MDAG/2026 ITP Powerflow, Short-Circuit and GMD schedule as presented.



CONTACT SLIDE

John O'Dell

Modeling Delivery Lead Specialist



**2026 ITP / CPP
Transition Assessments**

SCRIPT C3 COMMON MODEL UPDATE

SPP ENGINEERING MODELING

EDDIE WATSON

MDAG | DECEMBER 12, 2024

*Working together to responsibly and economically
keep the lights on today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

PURPOSE

SCRIPT C3 Common Model C3.1 – C3.5 Modeling update

ESSENTIAL POINTS

- C3.1 – C3.5 High-level Information
- SPP Engineering Model C3.1 – C3.5 Initiatives progress update

BACKGROUND – SCRIPT C3 HIGH-LEVEL DESCRIPTION

Recommendation: SPP should annually develop one common set of models to meet all regional transmission planning needs. Model development and benchmarking should be consolidated to meet those needs as required by SPP's tariff and NERC reliability standards with minimum unique model inputs between requirements.

BACKGROUND – SCRIPT C3 HIGH-LEVEL DESCRIPTION – CONT.

Action: Implement - The SCRIPT recommends SPP reduce the total number of models built for SPP planning processes while maintaining a high level of accuracy, purpose and development coordination. In addition to the current model reduction efforts underway, the models utilized to provide certain services should be reviewed to reduce assessments to a "minimum requirements" approach. SPP is actively working to evaluate and address each of the SCRIPT C3 Common Model recommendations provided by the CPPTF.



C3.1 Common Base Model Set Configuration



C3.2 Common Model Set Dispatch Assumptions



C3.3 MPM Model Development Recommendation



C3.4 Base Model Set Automation



C3.5 Base Model Benchmarking Consolidation

C3.1 COMMON BASE MODEL SET CONFIGURATION

Common Base Model	ITP BR Model ✓ SPP developed and is using one common reliability base model set which has effectively combined the MDAG and ITP Base Reliability (BR) model series and aligned differences identified in reliability model comparisons
Dispatch	Based on C3.2 Recommendation
Additional models	SPP has developed and is using off ramp models based on the common base model to meet all Federal Energy Regulatory Commission (FERC), North American Electric Reliability Corporation (NERC) and SPP Tariff requirements. <ul style="list-style-type: none">▪ MDAG/MMWG Input, Market Models (Market Economic Model (MEM) Input Powerflow & Market Powerflow Model (MPM))▪ GI (Base Generation Expansion Models (B-GEM) & the Local Generator Interconnection Models (L-GIM))

C3.1 COMMON BASE MODEL SET CONFIGURATION – CONT.

Annual Model Build Timing

Common BR Model Timing

SPP developed and is using an updated and schedule with timing for the one common reliability base model set to help ensure the availability of both internal and external data. The schedule developed considers the MOD-032 deadlines under MMWG and SPP deadlines.

SPP worked with the ERAG and MMWG to begin obtaining the most recent and accurate Short Circuit data from Eastern Interconnection neighboring entities and this process is scheduled to begin in February 2025. Other efforts are ongoing.

Address Shelf-Life & Late Data Processes

Models Shelf-Life and Late Data Recommendations

- For the 2026 ITP & CPP Transition Assessments, the deadline for submitting Section 10.3 model change requests is recommended to be July 31, 2025.
 - Submission and implementation of rating changes are recommended to be allowed during and/or at the end of the shelf life for the ITP and CPP Transition
- For the CPP ongoing process/activities, additional late data recommendations and process improvements will be provided in the future and included in a future ITP Manual Section 10.3 process improvement RR.

C3.1 COMMON BASE MODEL SET CONFIGURATION – CONT.

Additional Modeling Needs

Add GI information as well as Reduce GI Model Updates and Maintenance

SPP is adding Base Generation Expansion Models (B-GEMs), which serves as a foundation to meet the needs of both existing and future baseline generator and load deliverability and will be used as the base model for transfer analysis.

SPP is adding Transfer Generation Expansion Models (T-GEMs), which provide models for deliverability transfer scenarios designed to reflect expected system operations under normal and extreme conditions.

SPP is adding Local Generator Interconnection Models (L-GIMs), which provide Steady State/Powerflow and Stability Base models to use to perform GI reliability assessments.

Note: The related Modeling Policy recommendation, changes and information is being included in the Scope documentation.

ITP, CPP AND GI MODELING OPTIONS - OVERVIEW

Base ITP (Regional Planning)

- Base Reliability
- Economic

CPP (Regional Planning and GI)

- Generation Expansion Models (GEM)
 - Base case (modified ITP BR) (B-GEM)
 - Transfer scenarios following inter-DA and intra-DA structure (T-GEM)
- Meant to prepare the system for existing and future resources (including ITP resource expansion plan)
 - Replace resiliency transfer analysis
 - Replace robust GI cluster analysis

Local Generator Interconnection Models (L-GIM) (GI)

- Simplified DISIS
- Steady-state: Standalone "customer"/ITP resource plan FCITC
- Stability: Clustered similar to current DISIS

C3.2 COMMON MODEL SET DISPATCH ASSUMPTIONS

SPP will use current ITP BR dispatch

Operational bid data has been replaced with EIA Data as the input data for ITP BR Models Dispatch.

This allows SPP modeling to share dispatch input and output results and better collaborate with stakeholders to develop best dispatch.

SPP continues to evaluate 1) the recommendation for regional dispatching vs legacy dispatching, 2) dispatch recommendation for C3.1 refinements and 3) NRIS+/TSR alignment and considerations.

C3.2 COMMON MODEL SET DISPATCH ASSUMPTIONS – CONT.

C3.2 Common Model Options to Update Current ITP BR Dispatch

SPP will be proceeding with the ITP BR Dispatch update policy recommendation below:



Update the current ITP BR Conventional Dispatch process and replace the current Renewable Dispatch process with the new MDAG approved Renewable Dispatch process.

Both the updated Conventional and new Renewable Dispatch processes will include GI data as well as applicable data and process enhancements using EIA Data, as applicable.

C3 COMMON MODEL

C3.3 PROGRESS TO DATE

MPM
Waiver

MPM Model Development Recommendation

SPP is going to request a waiver for the ITP Manual, Section 2.3.2 for the Market Powerflow Models (MPMs) for the 2026 ITP & CPP Transition Assessments.

INITIATIVES STILL UNDER DEVELOPMENT



C3.4 Base Model
Set Automation

C3.5 Base Model
Benchmarking
Consolidation

C3 COMMON MODEL

C3.4 PROGRESS TO DATE

Base Model Automation

Base Model Set Automation

The efforts to add the data below to the EDST are completed or ongoing as indicated below

1. Base Retirement Date Updates - Completed ✓
2. MEM Gen and Load - Ongoing
3. Dispatch Information - Ongoing

Continuing to evaluate how to develop analytics around member feedback to have more efficient schedules and resource planning for the items above and other applicable automation

Continuing to evaluate how to implement recommendation for one database

Evaluating how to develop a rolling database for MEM models

C3 COMMON MODEL

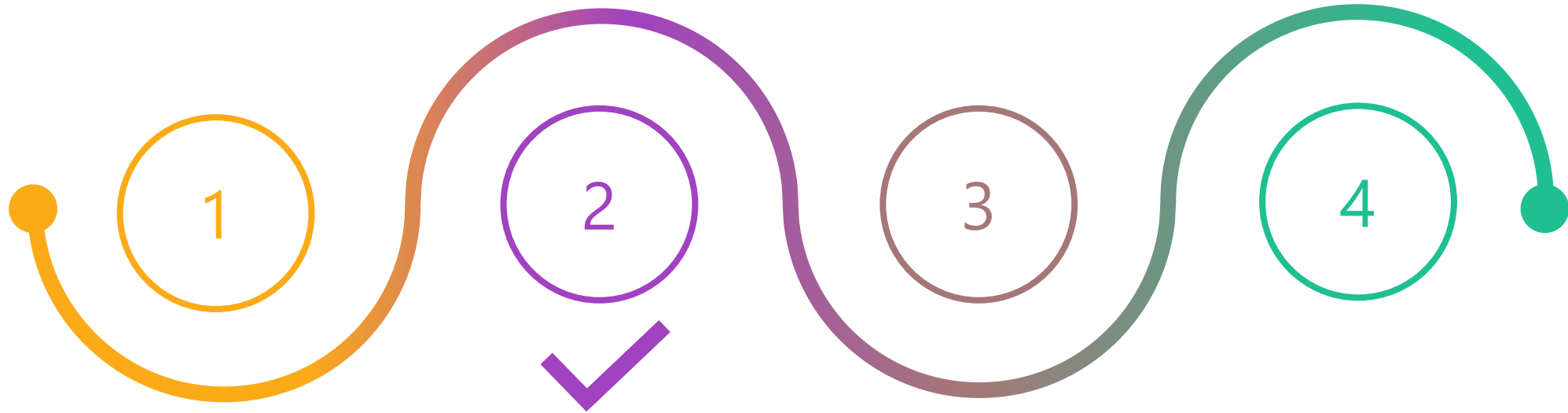
C3.5 PROGRESS TO DATE

Base Model Benchmarking Consolidation

SPP continues to evaluate how to implement this recommendation, which has unique issues to address including separate sets of data and separate process for current benchmarking vs the MOD-033 model validation processes.

SPP also continues to evaluate how best to add additional benchmarking, including possibly for specific Passes, of the models and model data to best address the related recommendation.

C3 COMMON MODEL ROADMAP



MILESTONE

Successfully combined MDAG and ITP BR reliability model series into one common base model. Address GI needs and other items, which will be included in Scope document.

MILESTONE

Successful development of off ramp model to meet SPP and Eastern Interconnection needs

MILESTONE

Benchmark using current ITP dispatch and replaced previous input data with EIA data. Updated renewable dispatch process; however, additional dispatch process improvements will be developed & implemented.

MILESTONE

Decision made on policy recommendations for C3.1 – C3.3 Initiatives. Continuing formation of a strategic scope and implementation of C3.4 – C3.5 initiatives.

CPPTF APPROVAL 12/06/2024 TWG AND ESWG APPROVAL 12/11/2024

New slide to show voting
result from 12/6 CPPTF
and 12/11 TWG & ESWG

- CPPTF approves the policy direction and TWG & ESWG approved several policies for the SCRIPT C3 Common Model CPP Transition modeling policy recommendations for the 2026 ITP & CPP Transition Assessments scope document, as follows:
 - SCRIPT C3.1: The deadline for submitting Section 10.3 model change requests will be July 31, 2025
 - SCRIPT C3.2: Common Model Set Dispatch Assumptions as outlined on slides 10-11
 - SCRIPT C3.3: A waiver for the ITP Manual, Section 2.3.2, for the MPMs

NEXT STEPS

- SPP staff will focus on further development of the CPP modeling policies for the ongoing initiatives

QUESTIONS

