



Planning Advisory Committee (PAC)

January 22, 2025

Carmel, IN

10:00 am to 2:00 pm ET / 9:00 am to 1:00 pm CT

Dial-in and Webex information available at www.misoenergy.org

Minutes

1. Administrative Items (Cynthia Crane)

a. Call to Order / Roll Call

Meeting called to order at 10:00 am ET.
The Public Meeting Notice was issued.

Chair: Cynthia Crane

Vice Chair: David Johnston

MISO Liaison: Jeanna Furnish

Stakeholder Relations: Amanda Jones

Affiliate: not present

Coordination: Michael Steiman

Eligible End Use Customers: Kavita Maini

Environmental: Sam Gomberg

Independent Power Producers: Erin Murphy

Muni/Coop/TDU: Steve Leovy

Power Marketers: John Orr

Public Consumers: Art Iler

State Regulatory: Marcus Hawkins

Transmission Developers: not present

Transmission Owners: Rob Wells

In Person Participants:

Adam Solomon, Steelhead
Americas LLC
Art Iler, IN OUCC
Benjamin Stearney, ACES
Bridget Sparks, AES
Carolyn Wetterlin, Xcel
Cynthia Crane, PAC
Dave Johnston, IURC

David Sapper, CAS
Eric Thoms, Invenergy
Erin Schlick,
Jeffery Kelley, NIPSCO
Jodi Walters, Gabel
Justin Stewart, Amron
Kevin Dion, PPL TransLink
Lise Trudeau, MN PUC

Margaret Kristian, Great Plains
Institute
Michael Schowalter, Excel
Nelson Klitzka, PPL TransLink
Shelby Leisz, AES Indiana
Temujin Roach, EDFR
Virginia Hodge, CES
Warren Hess, CMPAS

Remote Participants:

Aaron Demuth, OTP
Aaron Xu, Aurora Energy
Abhishek Dinakar, Savion
Adam Renfandt, NDSG
Adam Solomon, Vestas
Adam Stern, New Leaf Energy
Akeyo Seun, Pattern Energy
Alan Comnes, New Consulting
Alan Comnes, Triple Oak
Power
Alex Kloiber, CIPCO
Allie Koepplinger, MI PSC
Amanda Frazier, Treaty Oak
Clean Energy
Amber Joyce, MDU
Amelia Arnold, MI PSC

Andrew Burnes, New Project
Media
Andrew Grieve, Jupiter Power
Andrew Kienitz, MN Power
Andy Kowalczy, SREA
Angela Maiko, GRE
Anthony A Alvarez, Iowa OCA
Anton Ptak, EDFR
Arash Ghodsian, Invenergy
Armin Karabegovic, CWLD
Ashtin Massie, RMI
Aydrik Schuh, MDU
Bakhtawar Khan, Gabel
Barton Norfleet, PSC MS
Becky Turner, REPSOL
Ben Dayman, MEC

Ben Kaldunski, Xcel
Benjamin Scott, CMS
Beth Soholt, CGA
Beth Zelenka, ATC
Betty Fung, Spearmint
Bill Booth, Michael Best
Bill Vanderlaan, ICC
Blake Fletcher, Burns
Blake Robbins, Duke
Bob German, DTE
Boone Staples, Tenaska
Brad Pope, OMS
Brad Wentz, Ameren
Brandon Pollpeter, Longview
Infrastructure

➡ Post Only Item

✓ Potential Voting Item

^ Feedback Requested

* Verbal Report

Public

Brandon Waldrup, Cooperative Energy
 Brenda Prokop, CES
 Bret Hariel, Cooperative Energy
 Brian Daschbach, LS Power
 Brian Drumm, ITC
 Brian Giggee, MDU
 Brian Koz, Alphataraxia
 Bridgette Frazier, AR PSC
 Brock Ondaiko, AEP
 Bruce Grabow, Sheppard Mullin
 Bruce Grey, Samsung
 Carl Field, Hoosier Energy
 Carolyn Wetterlin, Xcel
 Carrie Rowland, Swift Current Energy
 Carson Hemphill, MEC
 Charlie Robling, IMEA
 Chengyue Guo, ATC
 Chris Kunkle, Apex
 Chris Miller, FERC
 Chris Norton, AMP
 Chris Thibodeaux, Cleco
 Christopher Plante, WEC
 Ciaran Gallagher, Clean Wisconsin
 Cicily McGee, AR PSC
 Cindy Guillot, Cleco
 Cindy Hammarlund, CES
 Cleveland Richards, PPL
 Cody Anderson, OTP
 Collin Cain, Bates White
 Collin Dettmann, City of Ames
 Connie Groh, Liskey PLLC
 Damian Berger, Atwell Group
 Dan Alfred, CMS
 Dan Juhl, Solar Bank LLC
 Dan Stroh, Ameren
 Daniel Williams, ICC
 Dave Harlan, Veriquist
 Dave Sandefur,
 David Brauch, Peregrine
 David Davis, Apex
 David Leventhal, AES
 David McRae, AECC
 David Osterkamp, ITC
 David Ricketts, Vistra
 David Sapper, CGA
 David Savage, IURC
 David Shaffer, Dentons
 David Zito, Gabel
 Dawn Quick, NIPSCO
 Derek Mosolf, GRE
 Derek Snyder, OTP
 Derek Sunderman, Savion
 DeWayne Todd, Alcoa
 Diana Rivera, LSBP
 Diane Janicki, BETM
 Divya Boddu, ICF

Drew Hagin, Azimuth Renewables
 Dylan Stockert, MDU
 Dylan Stupca, OTP
 Edward Garvey, AESL Consulting
 Emily McClure, ICC
 Eric Thoms, Invenergy
 Erik Hanser, MI PSC
 Erin Chiari, Jupiter Power
 Erin Murphy, Next Era
 Ethan Chastain, Hoosier Energy
 Ethan Tellier, CIPCO
 Forrest Tingo, LSBP
 Frederick Salvo, Baker Donelson
 Ginger Hodge, CES
 Greg Jekel, Hoosier Energy
 Greg Weiss, Ameren
 Haley Cook, Burns
 Hannah McCorry, ICC
 Harsha Chandavarapu, Next Era
 Heidi Martinson, CMPAS
 Heidi Ratz, Pattern Energy
 Isaiah Carter, CMS
 Jacob Lampi, CIPCO
 Jacob Strauss, MN PUC
 Jake Chapman, LA PSC
 Jake Johnson, Vesper
 James Huang, Enchanted Rock
 James O'Brien, ICC
 James Thomas, Power Ge
 Jared Alholinna, GRE
 Jared Rasbold, Cooperative Energy
 Jason Hastings, Total Energies
 Jason Mazigian, BEPC
 Jason Van Huss, Entergy
 Jay Rasmussen, Duke
 Jeff Eddy, ITC
 Jeff Gindling, Duke
 Jeffrey Tomich, E&E News
 Jennifer Solomon, Next Era
 Jennifer Solomon, Next Era
 Jennifer Vosburg, Jennifer J. Vosburg, LLC
 Jeremi Wofford, Ameren
 Jeremy Jones, Entergy
 Jessica Burdette, MN PUC
 Jill Kringstad, NDSG
 John Bott, IMPA
 John Chiles, GDS
 John Crotty, Iowa OCA
 John Liskey, CUB
 John Miller, Clearway
 John Orr, Constellation
 John Thomasen, MGE
 John Wolfram, Catalyst Consulting LLC

Jonathan Pagnussat, Arevon
 Jordan Johnson, CenterPoint
 Jordan Tillotson, MEC
 Joseph Sullivan, MN PUC
 Josh Byrnes, IA IUB
 Julia Ilhardt, Linea Energy
 Julie Bissen, OPPD
 Justin Davies, Ameren
 Justin McNeil, KY PSC
 Justin Stewart, Ameren
 Kara Briggs, NRG
 Kara Smerud, MN Power
 Karim Fattal, Epec Consulting
 Karis Anne Parnham, Entergy
 Karl Kohlrus, Prairie Power, Inc.
 Karsten Szajner, MI PSC
 Kate French, Blue Green Alliance
 Kathryn Douglass, Crowell
 Katie Rock, Blue Green Alliance
 Katie Siegner, RMI
 Kavita Mani, Wisconsin Energy
 Keith Berry, Hendrix
 Ken Foladare, Tangibli Inc
 Ken Gavin, DTE
 Ken Kagy, CFU
 Kenneth Dell Orto, Entergy
 Kevin Kingsley, MDU
 Kevin Minnick, City of Peru IL
 Khamsune Vongkhamchanh, Entergy
 Kimberly Dunning, CenterPoint
 Kiran Thammineni, Ameren
 Kristen Parker Long, Entergy
 Kristina Grandquist, MEC
 Kurt Vanderlick, Cleco
 Kyle Brouillette, IMPA
 Kyle Lockhouse, Sun Raycer
 Kyle Watson, Entergy
 Kyra Kelly, Duke
 Lane Sisung, LA PSC
 Larry Borum III, Ranger Power
 Laura Weir, MI PSC
 Laura Witzling, PSCW
 Lauren Azar, Azar Law
 Leslie Hamby, CenterPoint
 Liqin Jiang, Duke
 Lisa Barrett, Advanced Energy United
 Lisa Silverwulf, HDR Inc
 Lise Trudeau, MN PUC
 Liz Salerno, GQS Energy
 Luis Coba, PSEG
 Luis de la Mora, Strom Power
 Luke Kinder, AR PSC
 Madeleine Balchan, Xcel
 Madeline Cintron, ICC
 Maggie Kristian, NGR
 Mahendra Mishra, Ameren
 Marcus Hawkins, PSCW



Marcy Champion, MI PSC
 Margaret Miller,
 Mark Zelensky, PPL
 Matt Connolly, Advanced
 Power
 Matt Stobb, AES
 Matt Waldron, ATC
 Maurice Moss, ACP
 Maximillian Sablosky, Qcells
 Maxx Snell, MDU
 Meghan Ross, ITC
 Melanie Mosterhaus, QISG
 Melissa Alfano, SEIA
 Melissa Seymour, Sun2O
 Meredith Hurley, Jenner
 Michael Carrigan, ICC
 Michael Hagerty, Brattle
 Michael Krupa, Entergy
 Michael Ratliff, Spearmint
 Michael Saer, GRE
 Michael Steiman, MB HDRYO
 Mike Blackwell, Husch
 Blackwell
 Mike Dantzler, Ranger Power
 Mike Dicks, Hoosier Energy
 Mike Gahimer, Arevon
 Mike Malguarnera, BW Solar
 Mike Schowalter, Fresh Energy
 Mikhaila Calice, PSCW
 Miles Larson, LSBP
 Ming Zhou, DXT Commodities
 Mitchell Myhre, Alliant
 Molly Lundberg, MN8 Energy
 Naomi Simpson, MI PSC
 Natalie McIntire, NRDC
 Nathan Williams, Ameren
 Nicholas Ford, Hexagon
 Energy
 Nick Schroeder, MGE
 Nick Schwager, ElecNor
 Nihal Mohan, Next Era
 Nina Zheng, RWE
 Nitin Kushwaha, NGR
 Noah Berman, ICC
 Noah Cruse, Duke
 Noel Darce, Stone Pigman

Olivia Harby, GaleHead
 Pavan Sajja, Pattern Energy
 Peg Abbadini, HE
 Peter Schuster, MEC
 Presley Reed, Dentons
 Preston Hart, OTP
 Preston Riewer, OTP
 Rachael Moore, CMS
 Rachel Wiedewitsch, MN PUC
 Raj Pudhota, TED
 Ray McCausland, Ameren
 Regan Fink, PGR
 Rhett Edward Trease, Duke
 Rhonda Peters, CGA
 Richard Gordon, Ameren
 Richard Seide, GridStrategies
 Rob Wells, ITC
 Robert Fox, NIPSCO
 Robert Frank, NDSG
 Robert Vosberg, LPSC Staff
 Consultant
 Roberto Paliza, Paliza
 Ronnie Turner, SP Global
 Ruta Skucas, Crowell
 Ryan Kohler, PSCW
 Ryan Lovan, IA IUC
 Ryan Lowe, MB HDRYO
 Ryan McKeever, Husch
 Blackwell
 Ryan Wernette, WPSCI
 Ryan Wilhelmus, Big Rivers
 Rylan Hanson, OTP
 Sailee Phase, Tract
 Salman Nazir, Sun Raycer
 Sam Benson, MN PUC
 Sam Bustillos, Epec Consulting
 Sam Gomborg, UCS USA
 Samson Mabry, Entergy
 Sawyer McClure, WPSCI
 Scott Deffenderfer, Ameren
 Scott Jones, IN OUCC
 Shailabh Mazari, Avangrid
 Shirin Vora, Mission Clean
 Energy
 Sirisha Tanneeru, ICF
 Sky Goliber, GaleHead

Sonny Nguyen, Cubico
 Srijan Karim, MEC
 Stacie Hebert, OTP
 Steve Davies, IURC
 Steve Porter, DPC
 Steve Rakow, MN PUC
 Steven Leovy, WPPI
 Susan Rossi, Xcel
 Taylor Costes, IURC
 Terri Rivera, Entergy
 Terry Jarrett, Healy Lay
 Terry Volkmann, GLP
 Thomas Chamberlain, Entergy
 Thomas Swift, IMPA
 Thompson Adu, Engie NA
 Tia Elliott, Pelican Power
 TJ Cochran, Ameren
 Toba Pearlman, ICC
 Tom Imel, Alliant
 Tom Siegrist, SMXB Law
 Tommy Roberts, Hoosier
 Energy
 Travis Stewart, Gabel
 Trey Mayeux, Cleco
 Tricia Debleeckere, OMS
 Tuan Truong, Duke
 Tyler Bergman, CGA
 Tyler Huebner, Google
 Tzu-Yuan Su, DPC
 Victor Schock, NDSG
 Vince Vandaveer, Ameren
 Walt Cecil, PSC MO
 Warren Hess, CMPAS
 Wendy Reed, Wright Law
 Werner Roth, TX PUC
 Will Koebel, PSCW
 Will Turner, Hecate Energy
 Witter Swanson, Deshaw
 Yonas Demissie, 174PG
 Yvonne Cappel-Vickery, All 4
 Energy
 Zach Fjestad, OTP
 Zach Van Ness, Matrix
 Renewables
 Zachary Callen, ICC
 Zachary Farrar, Great Bay

b. Review Agenda

Agenda accepted as posted.

c. Review Meeting Minutes, Action Items

Minutes for the November 8 and 13 meetings were reviewed and adopted. There were no open action items.

d. Review Draft 2025 PAC Charter, Management Plan[✓]

Both documents were proposed for annual review and adopted by the PAC.

During review of the charter, a stakeholder noted the Advisory Committee discussion that Main Parent Entities should ensure the review of their charters. This was completed via annual review. During the meeting PAC leadership consulted with AC leadership and confirmed whether was no action item



pertaining to charter review beyond the routine annual review. During review of the management plan, several topics of interest were raised by stakeholders for potential addition to the plan later this year – following further information to come from MISO. Those topics include Order 1920/1920A compliance, Futures refresh, and future assignment of the “cost containment” issue following progress in the RECBWG.

None of these discussions resulted in additions to the plan at this time but will remain on the radar for PAC and MISO. The Chair asked if there were objections to approving the management plan by general consensus for the purposes of annual review; there were none.

2. Status Updates ➡ (Cynthia Crane)

- a. **Interconnection Process Working Group (IPWG)**
- b. **Planning Subcommittee (PSC)**
- c. **Steering Committee (SC)**

Written status reports were posted. There were no questions.

3. Liaison Report (Jeanna Furnish)

Jeanna provided highlights of her written report, including:

- FERC Order 1920
- Competitive Transmission Process announcement
- LRTP and Futures update
- Announcements and Workshops

4. MISO Posted Items ➡ (Jeanna Furnish)

- a. **Expedited Project Review (EPR) Requests**

Fort Mountain 161 kV Substation; Bluepoint 230 kV Substation; Avery 120 kV Station; Peru to Princeton 138 kV line; AECI Missouri Cobalt Load Addition at Ameren Fredericktown; Wieland Metals Load Addition

A written report of EPR requests was provided with meeting materials. There were no questions.

5. Reports from IPWG and PSC

- a. **Next Steps: Att X Gen Replacement Process Enhancement (PAC-2023-4) (Huaitao Zhang)**

Huaitao updated the PAC on progress for this item since receiving feedback from the PAC. He reviewed the key points from feedback and presented updated Point of Interconnection (POI) change evaluation criteria for Generator Replacement Requests. A deliverability study will be performed during the Replacement Impact Study for two scenarios: the existing unit at existing POI and the replacement unit at the new POI. MISO will validate the POI move evaluation study submitted by the Interconnection Customer.

Huaitao answered a few stakeholder questions, stating that a POI voltage class change would have more impact to the system and make it difficult to meet the proposed criteria. There were multiple clarifications asked about the deliverability study and various specific scenarios. He clarified that the deliverability study is an additional study and will be part of the Replacement Impact Study. He also described that the deliverability study will compare the scenario of replacement unit at new POI to existing unit at existing POI, to see the impact of a DPP study project in the model (DPP Phase 3 model) and reduce the replacement NRIS MW if there is adverse impact. Huaitao and Sumit Brar (MISO) explained that the deliverability study will use the latest DPP phase 3 model in addition to the POI change evaluation study, which uses the latest DPP models.

Proposed Tariff and BPM redlines were provided in the presentation and are targeted for filing in Q1 2025.

6. Expedited Resource Addition Study (ERAS) Proposals (PAC-2023-1)

- a. **ERAS Alternative: COMPP (Travis Stewart)**

The Coalition of Midwest Power Producers (COMPP) reviewed their written proposal, *Accelerated Resource Connection Queue*, which centers on use of a scoring matrix to evaluate commercial readiness and project maturity. COMPP proposes one study in 2025 and one in 2026 comprised of



the top 50 projects with the highest scores as evaluated by MISO, with a goal to move into draft GIA within 90 days of initial study kickoff. The proposed scoring matrix was shown on slide 4, though COMPP is open to feedback on the criterion. Travis addressed other issues raised in the workshop and in stakeholder feedback as noted on slide 5. He expressed openness to feedback or questions, as well as to modifications in the proposal, and urged MISO to consider additional time for evaluation prior to filing.

b. ERAS Alternative: Next Era (Erin Murphy)

A second proposal was shared on behalf of a Developer Coalition that emphasized concerns about discriminatory treatment, as well as queue delays, transmission capacity, and lack of clarity in the roles and processes of various states. Erin reviewed concerns with MISO's design and urged focus on improvements to the *current* MISO queue. Slides 5 – 7 of the posted presentation outlined the principles of the coalition's alternative proposal. Erin answered questions from other stakeholders about various scenarios, models, interplay with the current queue, and the determination of "resource adequacy need".

c. MISO (Andy Witmeier)

The MISO presentation summarized key points of submitted feedback and elements that were incorporated into the revised proposal. There was interest in these factors shown on slide 4. Andy answered questions about the Commercial Operation Date and Checklist – which is described in greater detail on slide 7. The current high-level features include quarterly processing of requests, a 3-year sunset for the exemptions, higher deposits and automatic withdrawal penalties, 100% site and POI control, RERRA acknowledgement, 3-year COD from submission, continue affected system study requirements, and a host of technical requirements. MISO continues to work with OMS to ensure State needs are met and will bring a final presentation to the PAC on February 19. A filing is planned for mid-March.

Stakeholders engaged in lengthy discussion and asked clarifying questions, offering additional suggestions and taking positions. Several asked MISO to slow down the process to ensure adequate time for feedback. Stakeholders asked about layering further requirements to demonstrate readiness, such as equipment on order, ensuring natural gas supply / fuel contracts, land acquisition, etc. Clarifications were asked about the model inputs/outputs and availability, prioritization of capacity or capacity priority, and dispatch differences between ERIS vs. NRIS projects.

MISO anticipates implementing ERAS after receiving FERC approval according to the timeline shown on slide 11. Feedback was not requested and there were no action items. MISO will add a workshop on March 3 or 7 to continue discussing up to the filing and will continue working with OMS to refine.

7. Transmission Planning and Other Study Updates

a. n/a

8. New Issue - GIA Small Generator Insurance Requirements[√] (Dan Juhl)
Hybrid Renewables LLC

A new issue was introduced and referred to the IPWG on the topic of changing the *pro forma* Generation Interconnection Agreement insurance requirements for small generators under 5MW. Presented by Hybrid Renewables, they noted that the current \$20M requirement was uneconomic for small projects. The IPWG leadership will determine when their schedule permits taking up this issue.

9. New Business

10. Review Action Items (Amanda Jones)

Action Item	Owner	Date	Status
PAC Leadership will share the approved charter and management plan with the Steering Committee	PAC Leadership	1/22/2025	Closed



PAC leadership will communicate the new issue assignment to the IPWG	PAC Leadership	1/22/2025	Closed
MISO will set up a special meeting to discuss the ERAS proposal for March 3 or 7 and communicate to stakeholders	MISO	1/22/2025	Closed

11. Adjourn

Meeting adjourned at 3:33 pm ET.

Next Meeting: February 19, 2025** (Off Cycle Meeting)