

PJM/MISO IPSAC Feb 17, 2022

Annual Issues Review – 3rd Party Issues and Feedback

I would like MISO and PJM to take a joint look at the SB 2408 (requires coal and natural gas plants to close in Illinois) and the EPA Coal Combustion Residuals Part A impact on coal plants. Ameren believes SB 2408 and CCR Part A may likely cause issues that neither MISO and PJM can effectively or economically mitigate these issues on their own. These edicts may cause issue that require interregional planning at the RTO level.

Please let me know if there are any questions.

Thanks,

Adam Weber, P.E. :: Consulting Engineer, Transmission Planning :
Ameren Services :

Exelon is interested in knowing what the RTO's have discussed and plans for studies related to the IL SB2408 (Energy Transition Act) and its requirements for fossil generation to retire over the next 10-25 years, especially the coal/oil generation plants that are required to retire by 2030. Some highlights of the plan's potential planning impacts are:

10 year planning horizon impacts:

- Puts the state on a path to 40% renewable energy by 2030 and 50% by 2040.
- Requires all private coal-fired and oil-fired electric generating units to reach zero emissions by January 1, 2030.
- Provides that it is the policy of the State of Illinois to move toward 100% clean energy by 2050.
- Creates a coal to solar program to support the transition of coal plants to renewable energy facilities.
- Requires the ICC to open an investigation to develop and adopt a renewable energy access plan to improve transmission capacity to support renewable energy expansion.
- Permits Ameren to establish up to 2 utility-scale solar pilot projects.

Longer term planning horizon impacts:

- Requires municipal coal, including Prairie State and CWLP Dallman, to be 100% carbon-free by December 31, 2045, with an interim emissions reductions goal of 45% from existing emissions by no later than January 1, 2035. If that emissions reduction requirement is not achieved by December 31, 2035, they must retire one or more units or reduce emissions by 45% from existing emissions by June 30, 2038.
- Requires all private natural gas-fired units to reach zero emissions by 2045, prioritizing reductions by those with higher rates of emissions and those in and near environmental justice communities.
- Requires municipal natural gas-fired units to reach zero emissions by 2045, unless companies convert units to green hydrogen or similar technology that can achieve zero carbon emissions.
- Requires all units that utilize combined heat and power or cogeneration technology to reach zero emissions by 2045, unless companies convert units to green hydrogen or similar technology that can achieve zero carbon emissions.

[Please feel free to contact me with any questions.](#)

[Thank you,](#)

[Bill Allen](#)

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Good Morning,

We would like to submit some feedback on the MISO-PJM JOA:

The main issue that we see are Affected Facilities Study delays. It is imperative to the success of many projects that the interconnection process be completed in a reasonable amount of time. Lately we've seen many months of delays in PJM Affected System Studies, which greatly negatively impact generation projects, effectively holding them hostage to the affected RTO.

The JOA should contain stronger language and hard deadlines to complete Affected System Studies to reduce the number of delays to the interconnection process.

Thanks,

Devon



Devon Pehrson
Electrical Engineer II

This is to submit congestion issues that WPPI Energy believes merit consideration in the 2022 annual issues review that forms part of the MISO-PJM coordinated system planning process. I provide these, as designated in the RTOs’ respective DA Markets, below.

Issue ID	PJM		MISO		
	monitored_facility	contingency_facility	Constraint_Name	Branch_Name	Contingency_Description
WPPI-2022-1	Sandburg XFMR 3 161/138 kV l/o Oak Grove - Sandburg 345 kV	Oak Grove - Sandburg 345 kV	SNBG TR3 FLO OAKGROVE-SANDBURG	SNBG TR3 XFMR_3 (XF/AMIL/*)	OAKGROVE - SANDBURG 345
WPPI-2022-2	QuadCities - RockCreek 345 kV l/o Quadcities-Sub91 345 + Sub91 345/161	Quad Cities-Sub91 345 + Sub91 345/161	QDCTY-RCKCK FLO QUD CITIES-SB91+SB91 XF	QUADCITY QUAD_ROCK_34_1 1 (LN/CE/ALTW)	QUAD CITIES-SUB 91 345 + SUB 91 XF
WPPI-2022-3	15518-Garden Plain 138kV l/o QuadCity-RockCreek 345kV	L345.QuadCities-RockCreek.0405	15518LIN-GARDNPL FLO QUAD CITY-ROCK CK	15518LIN 38L15518_2 1 (LN/CE/CE)	QUAD CITIES-ROCK CREEK 345 (0405)

All three of these constraints are in the top 100 DA constraints for 2021 for both regions, in terms of aggregate shadow price, something that appears to be true for fewer than a dozen other constraints.

Many approaches may be available to address these constraints. I note the following as a starting point:

1. Issue WPPI-2022-1 may be amenable to better cooling and/or rating of the Sandburg transformer. At present this transformer has a contingency rating equal to the long-term continuous rating. The critical contingency typically causes loading to increase by a factor of three or more, meaning that loading is quite low pre-contingency, which would appear to allow for a higher short-term contingency rating.
2. Issue WPPI-2022-2 could be addressed by increasing the rating of the monitored element, which appears to be limited by a 2,000 A terminal-equipment limitation. We should be striving to eliminate such limitations as a fundamental part of our efforts to improve the system to accommodate a changing resource mix.
3. Issue WPPI-2022-3 could presumably be addressed by increasing the rating of the monitored element, something that appears to merit consideration given that the rating is quite low compared to the ratings of the lines on either side.
4. Both WPPI-2022-2 & WPPI 2022-3 involve the Quad Cities-Rock Creek 345 kV circuit, one as the contingent element and the other as the monitored element. A variation on MISO MTEP Project ID 21874, proposed for MTEP22 Appendix A, appears to provide potential relief to both constraints. That MEC project would install a 345-161 kV transformer at Sub 17, connected to the nearby Cordova 345 kV bus, and with 161 kV outlet capability enhanced via a loop-in of the Sub 49-Beaver Channel 161 kV line. Augmenting this project with a new Sub 49-Rock Cr. 161 kV circuit—a distance of less than 3 miles that could be installed almost entirely in the empty position of the existing double-circuit 345 kV Quad Cities-Rock Cr. structure line adjacent to Sub 17—would likely address both identified congestion issues. This could be implemented so as to re-use of one of the existing 161 kV line terminals at Sub 17 for a Rock Creek circuit, and to allow both 161 kV line segments between Sub 17 and Sub 49 to be used as part of a single low-impedance bifurcated circuit with a rating of nearly 500 MVA, which would be compatible with a new Sub 49-Rock Creek 161 kV circuit construction matching that of the existing 345 kV circuit on the double-circuit tower line.

Alternatively, the open position on the Quad Cities-Rock Cr 345 kV double-circuit tower line could be used for a second 345 kV circuit between those endpoints. Each terminal substation appears able to accommodate a new line termination—adjacent to the existing

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terminal would be most straightforward (while an unconventional configuration, it's not clear that this would not be acceptable for circuits that are effectively redundant), and—alternatively—connecting to a new position on the bus also appears feasible in each case.

Please don't hesitate to contact me should you want to discuss further.

Thanks very much,

Steve Leovy

Transmission Engineer

WPPI Energy