Southwest Power Pool

System Impact Study
SPP-2025-037

For Transmission Service Requested By:
MCPI

From OPPD.COAL to MEC

For a Reserved Amount Of 400 MW

From 07/28/2025 To 07/30/2025

1. Executive Summary

MCPI has requested a system impact study for daily firm transmission service from OPPD.COAL to MEC. The period of the transaction is from 07/28/2025 00:00 to 07/30/2025 00:00. The request is for reservation 106745739.

The 400 MW transaction from OPPD.COAL has an impact on the following flowgate(s) with no AFC: NEBS56S40S55, COPSTJCPFRSJ, KELXFRTECXFR. To provide the AFC necessary for this transfer, the impact on these flowgates must be relieved.

2. Introduction

MCPI has requested a system impact study for transmission service from OPPD.COAL to MEC.

Three constrained flowgates require relief for this reservation to be accepted. The flowgates and their explanations are as follows:

- NEBS56S40S55: Nebraska City – Sub 3456 345 kV for the loss of Sub 3740 – Sub 3455 345 kV

- COPSTJCPFRSJ: Cooper – St. Joe 345 kV for the loss of St. Joe to Fairport to Cooper 345 kV

- KELXFRTECXFR: Kelly 161/115/13.8 kV XF 1 for the loss of Tecumseh Hill 161/115/12.47 kV XF 1

3. Study Methodology

A. Description

Southwest Power Pool used Transmission Adequacy & Reliability Assessment (TARA) to obtain possible unit pairings that would relieve the constraint. TARA calculates impacts on monitored facilities for all units within the Southwest Power Pool Footprint. The SPP ATC Calculator is used to determine response factors for the time period of the reservation.

B. Model Updates

The 2025 Southwest Power Pool model was used for the study. This model was updated to reflect the most current information available.

C. Transfer Analysis

Using the short-term calculator, the limiting constraints for the transfer are identified. The response factor of the transfer on each constraint is also determined.

The product of the transfer amount and the response factor is the impact of a transfer on a limiting flowgate that must be relieved. With multiple flowgates affected by a transfer, relief of the largest impact may also provide relief of smaller impacts.

Using TARA, specific generator pairs are chosen to reflect the units available for redispatch. The quotient of the amount of impact that must be relieved, and the generation sensitivity factor calculated by TARA is the amount of redispatch necessary to relieve the impact on the affected flowgate(s).

4. Study Results

After studying the impacts of the request, three flowgates requires relief. The flowgates and associated amount of relief are as follows:

Table 1

Flowgate	Duration	Sensitivity (%)	Required Relief (MW)
5508:NEBS56S40S55	7/28/2025 00:00 - 7/30/2025 00:00	4.70%	18.79
5566:COPSTJCPFRSJ	7/28/2025 12:00 - 7/28/2025 19:00	4.25%	17.01
5739:KELXFRTECXFR	7/28/2025 00:00 - 7/30/2025 00:00	3.06%	12.22

Table 2 displays a list of generator pairs that are possible relief options for each flowgate in question and the amount of redispatch capacity needed.

Table 2

5508:NEBS56S40S55			
Increment	**Decrement**	**Sensitivity**	**MW**
LES_CBLUF3	NEBCTY2G	45.79%	41.03

5566:COPSTJCPFRSJ			
Increment	**Decrement**	**Sensitivity**	**MW**
LAKERD34 5	NEBCTY2G	46.42%	36.65
LAKERD34 5	BPS ST3G	42.07%	40.43
JEC U3	NEBCTY2G	30.45%	55.85
JEC U3	BPS ST3G	26.11%	65.15

5739:KELXFRTECXFR			
Increment	**Decrement**	**Sensitivity**	**MW**
No redispatch pairs available			

5. Conclusion

Generation redispatch options were studied to relieve the necessary constraint(s). The result of this study shows that the constraints on the flowgate(s) in question could not be relieved. The reservation will be refused due to no ATC on the impacted flowgate(s).