

DATA IN COLUMN A HAS BEEN REMOVED AS HIGHLY CONFIDENTIAL TRADE SECRET AND CEII	2028 Summer Peak, High Wind, 900 MW West to East												2028 Summer Peak, High Wind, 900 MW West to East													
	MP						ATC						MP						ATC							
	MISO23_2028_SUM_MP, VSC HVDC						MISO23_2028_SUM_ATC, VSC HVDC						MISO23_2028_SHHW_MP, VSC HVDC						MISO23_2028_SHHW_ATC, VSC HVDC						MISO2:	
	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping
	Yes	Yes	Yes	Yes	Yes	Error	Yes	Yes	Yes	Yes	Yes	Error	Yes	Yes	Yes	Yes	Yes	Error	Yes	Yes	Yes	Yes	Yes	Error	Yes	Yes

2028 Light Load, 70% Wind, 900 MW West to East										
MP				ATC						
B_2028_SLL70_MP, VSC HVDC				MISO23_2028_SLL70_ATC, VSC HVDC						Comment
Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure							Applicable to MP alternative only
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
No	Yes	Yes	Insecure	Yes	Yes	No	Yes	Yes	Insecure	ATC's alternative is better in Summer and Shoulder cases
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
No	Yes	Yes	Insecure	Yes	Yes	No	Yes	Yes	Insecure	ATC's alternative is better in Summer case
Yes	Yes	Yes	Secure							Applicable to MP alternative only
No	Yes	Yes	Insecure							Applicable to MP alternative only
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Insecure	No	No	Yes	Yes	Yes	Insecure	Insecure on both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Insecure	No	No	Yes	Yes	Yes	Insecure	Insecure on both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Insecure	No	No	Yes	Yes	Yes	Insecure	Insecure on both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure							Applicable to MP alternative only
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
				No	No	No	Yes	No	Insecure	Applicable to ATC Alternative only. Generation Redispatch is needed afte the first N-1
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	No	Yes	Yes	Insecure	Generation redispatch is needed after the first N-1 for this P6 in Shoulder and Light Load
No	Yes	Yes	Insecure	No	No	No	Yes	Yes	Insecure	Insecure on both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives
										Error due to inability to solve this P6 in steady-state due to voltage decline. Generation redispatch is needed after the first N-1 for this P6 in both alternatives
Yes	Yes	Yes	Error	Yes	Yes	Yes	Yes	Yes	Error	
No	Yes	No	Insecure	No	No	No	Yes	No	Insecure	Insecure on both alternatives
No	Yes	No	Insecure	No	No	No	Yes	No	Insecure	Insecure on both alternatives

2028 Light Load, 70% Wind, 900 MW West to East										
MP				ATC						
3_2028_SLL70_MP, VSC HVDC				MISO23_2028_SLL70_ATC, VSC HVDC						Comment
Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	
Yes	Yes	Yes	Error	Yes	Yes	Yes	Yes	Yes	Error	
										Error due to inability to solve this P6 in steady-state due to voltage decline. Generation redispatch is needed after the first N-1 for this P6 in both alternatives

DATA IN COLUMN A HAS BEEN REMOVED AS HIGHLY CONFIDENTIAL TRADE SECRET AND CEII	2028 Summer Peak, High Wind, 550 MW West to East												2028 Summer Peak, High Wind, 550 MW West to East											
	MP						ATC						MP						ATC					
	MISO23_2028_SUM_MP, VSC HVDC						MISO23_2028_SUM_ATC, VSC HVDC						MISO23_2028_SHHW_MP, VSC HVDC						MISO23_2028_SHHW_ATC, VSC HVDC					
	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status
Contingency	Yes	Yes	Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure

2028 Light Load, 70% Wind, 550 MW West to East												
MP						ATC						Comment
MISO23_2028_SLL70_MP, VSC HVDC						MISO23_2028_SLL70_ATC, VSC HVDC						
Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	Stable	Secure Damping	Secure Voltage	Secure Frequency	Secure Relay	Overall Status	
Yes	Yes	Yes	Yes	Yes	Secure	Yes	Yes	Yes	Yes	Yes	Secure	Same performance in both alternatives