Please utilize the following tabs for review.

ITP Project List

List of projects with description, cost estimates, project type, and portfolios for which they have been selected

Notes

Projects with a "+" or "++" have been sent out for cost estimates in the second window, or are a combination of previously requested upgrades.

Groupings:

CE - Cost Effective

HN - Highest Net APC Benefit

MV - Multi-Variable

"*" - Project sent out in for Round 1 for cost estimate

"+" - Project added to project list after Round 1 of cost estimates

"++" - Project added to project list after the Engineering Summit

"0" - Project was initially considered or selected for grouping, but fell out based on BCR criteria or infeasability

"1" - Project was selected for grouping and stayed in based on BCR criteria

"-" - Project did not get selected for grouping

Economic Need Notes

List of economic needs that are either resolved by model corrections or do not have a project chosen to address the need.

						Top Projects Considered for Reliability Portfolios				Top Projects Considered for Economic Groupings							
General Description	Conceptual Cost Estimate	Study Cost Estimate	Transmission Owner(s)	Study Cost Estimate Source	Need ID	Short Circuit	Base Reliability	F1 Market Powerflow	F2 Market Powerflow	F1 CE Grouping	F1 HN Grouping	F1 MV Grouping	F2 CE Grouping	F2 HN Grouping	F2 MV Grouping	Currently Evaluated as part of MISO CSP	Comments
Upgrade any necessary terminal equipment at Cleo Corner and/or Cleo Junction to increase the ratings of the 69 kV line between the two substations to a summer emergency rating of 48 MVA	$88,924	$16,602	OKGE	TO	4461111		*										
Upgrade any necessary terminal equipment at Deaf Smith and/or Plant X to increase the rating of the 230 kV line between the two substations to 490/540/490/540 (SN/SE/WN/WE) MVA	$1,185,094	$1,185,094	SPS	SPP Staff	4484121		*										
Upgrade any necessary terminal equipment at Lubbock South and/or Jones to increase the ratings of the second 230 kV line between the two substations to 500/550/500/550 (SN/SE/WN/WE) MVA	$88,924	$88,924	SPS	SPP Staff	4498610		*										
Upgrade any necessary terminal equipment at Plains Int and/or Yoakum to increase the ratings of the 115 kV line between the two substations to 158.9/175/158.9/175 (SN/SE/WN/WE) MVA	$158,742	$158,742	SPS	SPP Staff	4499665		*										
Upgrade any necessary terminal equipment at Lubbock South and/or Jones to increase the ratings of the first 230 kV line between the two substations to 500/550/500/550 (SN/SE/WN/WE) MVA	$88,924	$88,924	SPS	SPP Staff	4499702		*										
Upgrade any necessary terminal equipment at Potter and/or Newhart to increase the rating of the 230 kV line between the two substation to 375.7/540/375.7/540 (SN/SE/WN/WE) MVA	$1,185,094	$1,185,094	SPS	SPP Staff	4499735		*										
Upgrade any necessary terminal equipment at Moore W and/or RB-S&S to increase the ratings of the 115 kV line between the two substations to 159/175/159/175 (SN/SE/WN/WE) MVA	$158,742	$158,742	SPS	SPP Staff	10305414 4504686		*	*									
Rebuild 70.8-mile 138kV line from Butler to Altoona and upgrade any necessary terminal equipment to increase the summer emergency rating to 478 MVA	$65,859,285	$75,031,652	WERE	TO	2019ITPE1N001 2019ITPE2N001					0		0	0		0	Yes	
Tap the existing 345kV line from Neosho to La Cygne 45% from Neosho near Marmaton at new NEWSUB 345kV substation Build a new 345kV line from Blackberry to NEWSUB 345kV with a summer emergency rating of 1792 MVA Build a new 345kV line from Wolf Creek to NEWSUB 345kV with a summer emergency rating of 1792 MVA	$172,369,518	$158,267,639	AECI/WERE	TO and Third Party	2019ITPE1N001 2019ITPE2N001 2019ITPE1N006 2019ITPE2N004 2019ITPE1N007 2019ITPE2N005 2019ITPE1N027 2019ITPE2N033					*	*	*	*	*	*	Yes	
Build a new 345kV line from Neosho to Wolf Creek with a summer emergency rating of 1792 MVA	$125,670,406	$113,779,066	WERE	TO and Third Party	2019ITPE1N001 2019ITPE2N001 2019ITPE1N006 2019ITPE2N004 2019ITPE1N027 2019ITPE2N033 2019ITPE2N005						*	*		*	*	Yes	
Expand the existing Wolf Creek 345/69kV station to accommodate 138kV line terminal and 345/138kV transformer Install one (1) new 345/138 transformer at Wolf Creek with a summer emergency rating of 478 MVA Build a new 138kV line from Tioga to Wolf Creek rated at 300.5/373.8/300.5/373.8 (SN/SE/WN/WE) MVA	$49,110,552	$70,361,921	WERE	TO and Third Party	2019ITPE1N001 2019ITPE2N001 2019ITPE1N006 2019ITPE2N004 4413955 4447822		0			0	0	0	0		0	Yes	
Replace the existing 345/69 kV transformer at the Wolf Creek substation with a new 345/138 kV transformer rated at 500/550/500/550 MVA Install a new 138/69kV transformer at the existing Athens substation rated at 100/110 MVA Build a new 138 kV line from Athens to Tioga with a summer emergency rating of 286 MVA Rebuild and change operation of Burlington to Burlington Industrial from 69 kV to 138 kV and upgrade any necessary terminal equipment to achieve a summer emergency rating of 286 MVA Rebuild and change operation of Burlington to Burlington Junction from 69 kV to 138 kV and upgrade any necessary terminal equipment to achieve a summer emergency rating of 286 MVA Rebuild and change operation of Wolf Creek to Sharp County to 138 kV and upgrade any necessary terminal equipment to achieve a summer emergency rating of 286 MVA Operate Wolf Creek to Athens corridor at 138 kV	$32,636,255	$68,894,371	WERE	TO and Third Party	2019ITPE1N001 2019ITPE2N001 2019ITPE1N006 2019ITPE2N004 4447822 4411643 4413955 4411317		0			0	0	0	0		0		
Install one (1) 138kV phase-shifting transformer at Butler along with upgrading relay, protective, and metering equipment, and all associated and miscellaneous materials	$3,055,737	$7,281,570	WERE	TO	2019ITPE1N001 2019ITPE2N001 4411643 4411317		*			*	*	*	*	*	*	Yes	
Upgrade any necessary terminal equipment at Springfield and/or La Russell Energy Center to increase the rating of the 161kV line between the two substations to 189/189/273/273 (SN/SE/WN/WE) MVA	$864,512	$3,879,000	EMDE/SWPA	TO	2019ITPE1N003 2019ITPE2N003					*	*	*	*	*	*		
Replace the existing 345/69kV transformer at the Wolf Creek substation with a new 345/69kV transformer rated at 150/165 MVA	$8,041,990	$13,225,009	WERE	TO	2019ITPE1N006 2019ITPE2N004 4413955 4447822		*			*		*	*		*		
Add a dual-winding capable 345/138/69kV transformer and any necessary terminal equipment at Wolf Creek to achieve a summer emergency rating of 550MVA	$8,041,990	$48,534,639	WERE	TO	2019ITPE1N006 2019ITPE2N004 4413955 4447822		0										
Upgrade any necessary terminal equipment at Cleveland (AECI) and/or Cleveland (GRDA) to increase the rating on the 138kV bus tie to a summer emergency rating of 573 MVA	$1,332,867	$1,950,000	GRDA	TO	2019ITPE1N009 2019ITPE2N009					*		*	*		*		
Rebuild 5.6 miles of 161kV line from Kerr to Maid Ckt 1 and upgrade any necessary terminal equipment to increase the summer emergency rating to 558 MVA Rebuild 5.6 miles of 161kV line from Kerr to Maid Ckt 2 and upgrade any necessary terminal equipment to increase the summer emergency rating to 558 MVA	$10,688,888	$8,736,000	GRDA	TO	2019ITPE1N010 2019ITPE2N010					*	*	*	*	*	*	Yes	
Upgrade any necessary terminal equipment at Kinze (GRDA) and/or Kinze (OKGE) to increase the rating of the 138kV line between the two substations to a summer emergency rating of 452 MVA	$395,644	$185,775	GRDA/OKGE	TO	2019ITPE1N009 2019ITPE2N009 2019ITPE1N011 2019ITPE2N012					*		*	*		*		
Build a new 345kV line from Wekiwa to Sooner with a summer emergency rating of 1792 MVA Upgrade any necessary terminal equipment at Sand Springs and/or Sheffield Steel to increase the rating of the to 138kV line between the two substations to 271/278/311/347 (SN/SE/WN/WE) MVA	$88,417,219	$85,948,123	AEPW/OKGE	TO and Third Party	2019ITPE1N009 2019ITPE2N009 2019ITPE1N011 2019ITPE2N012 2019ITPE1N012 2019ITPE2N011						*	*		*	*		
Change operation of Wekiwa to Silver City 138kV to 345kV and upgrade any necessary terminal equipment to achieve a summer emergency rating of 1195 MVA Build a new 345kV substation adjacent to the existing Silver City 138kV substation Install new 345/138kV transformer at the new Silver City substation with a summer emergency rating of 493 MVA Build a new 345kV line from Sooner to new Silver City 345kV substation with a summer emergency rating of 1792 MVA Upgrade any necessary terminal equipment at Silver City (AECI) to Silver City (GRDA) to increase the rating of the 138kV bus tie to a summer emergency rating of 600 MVA	$99,201,623	$84,088,954	OKGE/GRDA	TO and Third Party	2019ITPE1N009 2019ITPE2N009 2019ITPE1N011 2019ITPE2N012 2019ITPE1N012 2019ITPE2N011						*	*		*	*		
Upgrade any necessary terminal equipment at Northwest and/or Cimarron to increase the rating of the 345kV line between the two substations to 1248/1426/1555/1684 (SN/SE/WN/WE) MVA Upgrade any necessary terminal equipment at Northwest and/or Matthewson to increase the rating of the 345kV line between the two substations to a summer emergency rating of 1792 MVA	$4,465,694	$369,869	OKGE	TO	2019ITPE1N012 2019ITPE2N011					*	*	*	*	*	*		
Upgrade any necessary terminal equipment at Lawrence Energy Center and/or Midland to increase the rating of the 115kV line between the two substation to a summer emergency rating of 159 MVA	$358,281	$30,939	WERE	TO	2019ITPE1N013 2019ITPE2N013					*	*	*	*	*	*		

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General Description	Conceptual Cost Estimate	Study Cost Estimate	Transmission Owner(s)	Study Cost Estimate Source	Need ID	Short Circuit	Base Reliability	F1 Market Powerflow	F2 Market Powerflow	F1 CE Grouping	F1 HN Grouping	F1 MV Grouping	F2 CE Grouping	F2 HN Grouping	F2 MV Grouping	Currently Evaluated as part of MISO CSP	Comments
Tap the existing 230kV line from Lawrence Hill to Swissvale at Baldwin Creek Install 230/115kV transformer at Baldwin Creek substation rated at 280/308 MVA	$29,047,404	$21,400,508	WERE	TO	2019ITPE1N013 2019ITPE2N013					*	*	*	*	*	*		
Rebuild 2.03 miles of 138kV line from Kingfisher to East Kingfisher and upgrade any necessary terminal equipment to increase the summer emergency rating to 286 MVA	$1,888,338	$500,000	WFEC	TO	2019ITPE1N016 2019ITPE2N018					*	*	*	*	*	*		
Upgrade any necessary terminal equipment at Sundown and/or Amoco Tap to increase the rating of the 115kV line between the two substations to 159/175/176/194 (SN/SE/WN/WE) MVA	$358,281	$358,281	SPS	SPP Staff	2019ITPE1N020 2019ITPE2N017					*	*	*	*	*	*		
Rebuild 0.3 miles of 138kV line from Dover Switch to O'Keene and upgrade any necessary terminal equipment increase the ratings to 117/136/147/161 (SN/SE/WN/WE) MVA	$395,644	$120,000	WFEC	TO	2019ITPE1N021 2019ITPE2N028					*	*	*	*	*	*		
Tap the existing 138kV line from Carnegie South to Southwestern at new NEWSUB 138kV substation at intersection with Washita to Slick Hills 138kV line Tap the existing 138kV line from Washita to Slick Hills at new NEWSUB 138kV substation at intersection with Carnegie South to Southwestern 138kV line	$3,194,979	$10,447,415	AEPW	TO	2019ITPE1N022 2019ITPE2N019					0		0	0		0		
Tap the 345kV line from Terry Road to Sunnyside 50% from Terry Road at new 345/138kV NEWSUB substation Install new 345/138kV transformer at NEWSUB with a summer emergency rating of 493 MVA Build a new 138kV line from Loco to NEWSUB138 with a summer emergency rating of 478 MVA Expand the existing 138kV substation at Dundee Expand the existing 138kV substation at Healdton Build a new 138kV line from Dundee to Healdton with a summer emergency rating of 478 MVA	$36,337,351	$35,809,851	AEPW/OKGE/WFEC	TO and Third Party	2019ITPE1N022 2019ITPE2N019					0	0	0	0	0	0		
Rebuild 1.2 miles of 115kV line from Spearman to Hansford and upgrade any necessary terminal equipment for 125 degree C operation to increase the ratings to 212/233/227/250 (SN/SE/WN/WE) MVA	$828,359	$828,359	SPS	SPP Staff	2019ITPE1N023 2019ITPE2N021					*	*	*	*	*	*		
Extend existing 115kV line from Erie Road to Marshall ER by one (1) mile to re-terminate into the existing Marshall substation Install any necessary terminal equipment at the Marshall 115kV station to accommodate an additional line from Erie Road Install any neccessary equipment to dynamically rate the Granite Falls to Marshall 115kV line	$977,056	$1,485,960	BEPC/MRES/XEL	TO	2019ITPE1N026					*	*	*				Yes	
Reconductor 3 miles of 345kV line from Waverly to La Cygne and upgrade any necessary terminal equipment to increase the rating to 1141/1365/1141/1365 (SN/SE/WN/WE) MVA	$4,286,371	$5,573,800	WERE	TO	2019ITPE1N027 2019ITPE2N033					*	*	*	*		*		
Tap Caney River to Neosho 345kV Ckt 1 at NEWSUB Upgrade any necessary terminal equipment at Neosho to and/or NEWSUB to increase the rating of the 345kV line between the two stations to a summer emergency rating of 1159 MVA	$2,232,847	$419,116	WERE	TO	2019ITPE2N005								*		*		
Tap the existing 345kV line from Sunnyside to Hugo 40% from Sunnyside at new NEWSUB 345kV substation Install new 345/138kV transformer at NEWSUB with a summer emergency rating of 478 MVA Build a new double circuit 138kV line from S. Brown to NEWSUB rated at 300.5/373.8/300.5/373.8 (SN/SE/WN/WE) MVA	$33,066,230	$43,337,280	OKGE/SWPA	TO and Third Party	2019ITPE2N015									0	0	Yes	
Rebuild 18.62-mile 138kV line from Russett to S. Brown and upgrade any necessary equipment to increase the summer emergency rating to 286 MVA	$17,320,620	$7,479,900	WFEC	TO	2019ITPE2N015								*	*	*	Yes	
Upgrade any necessary terminal equipment at S. Brown and/or Russett to increase the ratings of the 138kV line between the two substations to 117/136/147/161 (SN/SE/WN/WE) MVA	$88,924	$6,900	WFEC	TO	2019ITPE2N015								0	0	0		
Upgrade any necessary terminal equipment at Valiant and/or Hugo to increase the rating of the 138kV line between the two substations to 299/353/381/421 (SN/SE/WN/WE) MVA Upgrade any necessary terminal equipment at S. Brown and/or Russett to increase the ratings of the 138kV line between the two substations to 117/136/147/161 (SN/SE/WN/WE) MVA	$484,568	$17,500	WFEC	TO	2019ITPE2N015 2019ITPE2N022								0	0	0	Yes	
Rebuild 10.5 miles of 138kV line from Cottonwood Creek to Cottonwood Creek-Marshall Tap and upgrade any necessary terminal equipment to increase the summer emergency rating to 478 MVA	$395,644	$8,616,869	OKGE	TO	2019ITPE2N023								*	*	*		TO identified rebuild is necessary for this line section
Replace the existing 345/115kV transformer at Red Willow and upgrade any necessary terminal equipment to increase the summer emergency rating to 417 MVA	$8,041,990	$6,770,000	NPPD	TO	2019ITPE2N024								*	*	*		
Upgrade any necessary terminal equipment at Arnold and/or Ransom to increase the rating of the 115kV line between the two substations to 79.7/165.1/79.7/165.1 (SN/SE/WN/WE) MVA Upgrade any necessary terminal equipment at Pile and/or Scott City to increase the rating of the 115kV line between the two substations to 212/229/261/273 (SN/SE/WN/WE) MVA Upgrade any necessary terminal equipment at Scott City and/or Setab increase the rating of the 115kv line between the two substations to 213/230/263/276 (SN/SE/WN/WE) MVA	$1,578,917	$3,652,000	SUNC	TO	2019ITPE2N026								*	*	*		
Upgrade any necessary terminal equipment at Beach and/or Hoxie to increase the rating of the 115kV line between the two substations to 83/99/106/118 (SN/SE/WN/WE) MVA	$88,924	$28,857	MIDW	TO	2019ITPE2N026								*	*	*		
Upgrade any necessary terminal equipment at Alexander and/or Ness City to increase the rating of the 115kV line between the two substations to 83/99/106/118 (SN/SE/WN/WE) MVA	$88,924	$0	MIDW	N/A	2019ITPE2N026								0	0	0		Has been identified as a model correction
Replace first existing 345/230kV transformer at Ft. Thompson and upgrade any necessary terminal equipment to increase the summer emergency rating to 500 MVA Replace second existing 345/230kV transformer at Ft. Thompson and upgrade any necessary terminal equipment to increase the summer emergency rating to 500 MVA	$16,083,980	$14,750,000	WAPA	TO	2019ITPE2N027								*	*	*		
Upgrade any necessary terminal equipment at Carlisle and/or LP-Doud to increase the rating of the 115kV line between the two substations to 212/212/228/228 (SN/SE/WN/WE) MVA	$88,924	$88,924	SPS	SPP Staff	2019ITPE2N030 4498058		*						*	*	*		
Reconductor 3 miles of 161kV line Ckt 2 from Craig to Lenexa and upgrade any necessary terminal equipment to increase the summer emergency rating to 557 MVA	$3,358,380	$5,860,400	KCPL	TO	2019ITPE2N031								*	*	*		
Replace 21 breakers at Anadarko 138kV with 63kA breakers	$11,606,030	$228,500	WFEC	TO	2019ITP-SC0001	*											
Install 12 breakers at Mooreland 138/69kV in a new switch yard with 40kA breakers	$9,826,996	$11,000,000	WFEC	TO	2019ITP-SC0002	*											
Replace 12 breakers at Mooreland 138/69 with 40kA breakers	$1,105,336	$835,850	WFEC	TO	2019ITP-SC0003	*											
Replace 1 breaker at Washita 69kV with 40kA breaker	$552,668	$52,400	WFEC	TO	2019ITP-SC0004	*											
Replace 3 breakers at at Santa Fe 138kV with 40kA breakers	$1,658,004	$406,935	OKGE	TO	2019ITP-SC0005	*											
Replace 2 breakers at Westmoore 138kV with 40kA breakers	$1,105,336	$271,289	OKGE	TO	2019ITP-SC0008	*											
Replace 1 breaker at Craig 161kV with 63kA breaker	$552,668	$254,000	KCPL	TO	2019ITP-SC0010	*											
Replace 4 breakers at Souhtown 161kV with 40kA breakers	$2,210,672	$880,000	KCPL	TO	2019ITP-SC0011	*											
Replace 2 breakers at Midtown 161kV with 40kA breakers	$1,105,336	$440,000	KCPL	TO	2019ITP-SC0015	*											
Replace 2 breakers at Leeds 161kV with 40kA breakers	$1,105,336	$440,000	KCPL	TO	2019ITP-SC0017	*											
Replace 5 breakers at Canaday 115kV with 40kA breakers	$2,763,340	$2,600,000	NPPD	TO	2019ITP-SC0019	*											
Replace 2 breakers at Hastings 115kV with 40kA breakers	$1,105,336	$550,000	NPPD	TO	2019ITP-SC0024	*											
Replace 1 breaker at Moore 13.8kV with 40kA breaker	$552,668	$510,000	NPPD	TO	2019ITP-SC0026	*											
Replace 1 breaker at Carlsbad Interchange 115kV with 40kA breaker	$552,668	$552,668	SPS	SPP Staff	2019ITP-SC0027	*											
Replace 3 breakers at Hale County Interchange 115kV with 40kA breakers	$1,658,004	$1,658,004	SPS	SPP Staff	2019ITP-SC0028	*											
Replace 3 breakers at Denver City Interchange North and South 115kV with 40kA breakers	$5,526,681	$3,316,008	SPS	SPP Staff	2019ITP-SC0031	*											
Replace 21 breakers at Riverside Station 138kV with 80kA breakers	$11,606,030	$16,288,000	AEPW	TO	2019ITP-SC0037	*											
Replace 8 breakers at Soutwestern Station 138kV with 63kA breakers	$4,421,345	$4,421,345	AEPW	TO	2019ITP-SC0058	*											
Upgrade any necessary terminal equipment at Getty East and/or Skelly to increase the ratings of the 69 kV line between the two substations to 95/108/95/108 (SN/SE/WN/WE) MVA	$220,763	$114,821	WERE	TO	4414147 4449642 4456489 4475937 4422340 4440892		*										
Install a new 12 MVAR capacitor bank at Duke 69 kV substation	$490,093	$490,093	WFEC	TO	4417240 4416343 4450626 4449875		0										

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Install a new 12 MVAR capacitor bank at Dover Switchyard 69 kV substation	$490,093	$490,093	WFEC	TO	4417613 4415388 4451917 4451716 4451518		0										Has been identified as a model correction
Rebuild 6.03 miles of 115 kV line from Baileyville to S Seneca and upgrade any necessary terminal equipment to increase the rating to 218/239/218/239 (SN/SE/WN/WE) MVA Rebuild 7.99 miles of 115 kV line from Baileyville to Smittyville and upgrade any necessary terminal equipment to increase the rating to 218/239/218/239 (SN/SE/WN/WE) MVA Rebuild 2.17 miles of 115 kV line from Marshall County to Smittyville and upgrade any necessary terminal equipment to increase the rating to 218/239/218/239 (SN/SE/WN/WE) MVA	$9,898,895	$17,636,022	WERE	TO	4446411 4447550 4447923 4413637 4410887 4411077 4482927 4481426 4484873		*										
Expand the existing Firth 115kV substation and install a new 15 MVAR capacitor bank	$3,443,055	$3,370,000	NPPD	TO	4450627 4451061 4450851 4451502 10231921 10232951 4476511 4477753 10323468 10323578 4445186 4442279 4486106 4485766 4470074 4470472 4469911 4469650 4410187 4405601 10269581 10267610 4433852 4434452 4434949 4514627 4513928 10301492		*	*	*								
Replace the existing 115/69kV transformer at Pryor Junction with a new 138/115kV transformer and upgrade any necessary terminal equipment to achieve a summer emergency rating of 167 MVA	$3,055,737	$9,155,167	AEPW	TO	4456059 4463838 10323443 10323541 4417511 4417005 10301111 10301314 10233444 10234476 10268157 10269280 4485805 4486359 4485744 4488220 4488511 4420914 4450770 4451689		*	*	*								
Reconductor 1.48 miles of 138 kV from Tulsa SE to 21st Street Tap and upgrade any necessary terminal equipment to increase the ratings to 312/345/312/345 (SN/SE/WN/WE) MVA	$1,095,472	$1,307,802	AEPW	TO	4456059 4464499 4464425 4419185 4420914		*										
Reconductor 5 miles of 115 kV line from Garrison to Pick City and upgrade any necessary terminal equipment to increase the ratings to 120/150/120/150 (SN/SE/WN/WE) MVA Reconductor 7.43 miles of 115 kV line from Stanton to Pick City 115kV and upgrade any necessary terminal equipment to increase the ratings to 120/150/120/150 (SN/SE/WN/WE) MVA Reconductor 13.41 miles of 115 kV line from Stanton to Beulah 115kV and upgrade any necessary terminal equipment to increase the ratings to 120/150/120/150 (SN/SE/WN/WE) MVA	$13,020,614	$8,090,000	WAPA	TO	4456785 10686997 4498210 10685693 4466081 10686603 4502128 10685496 4468903 10688133 10686780		*										
Rebuild 1.97 miles of 138 kV line from Tulsa SE to S.Hudson and upgrade any necessary terminal equipment to increase the summer emergency rating to 286 MVA	$1,832,525	$6,724,237	AEPW	TO	4460892 4467059 4463838 4464544 4464876 4420139 4420683 4422109 4493189 4494137		*										

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General Description	Conceptual Cost Estimate	Study Cost Estimate	Transmission Owner(s)	Study Cost Estimate Source	Need ID	Short Circuit	Base Reliability	F1 Market Powerflow	F2 Market Powerflow	F1 CE Grouping	F1 HN Grouping	F1 MV Grouping	F2 CE Grouping	F2 HN Grouping	F2 MV Grouping	Currently Evaluated as part of MISO CSP	Comments
Build a new 138 kV line from Dundee to Healdton rated at 295/346/295/346 (SN/SE/WN/WE) MVA Expand the existing 138kV substation at Dundee and upgrade any necessary terminal equipment to achieve 295/346/295/346 (SN/SE/WN/WE) MVA Expand the existing 138kV substation at Healdton and upgrade any necessary terminal equipment to achieve 295/346/295/346 (SN/SE/WN/WE) MVA	$8,372,869	$9,714,348	WFEC	TO and Third Party	4470417 4469799 4469926 4471996 4473270 4461611 4457133 4438373 4513369 4514130 4514050 4515548 4514956 4435234		0										
Upgrade any necessary terminal equipment at Bushland and/or Deaf Smith to increase the rating of the 230 kV line between the two substations to 389.2/475/389.2/475 (SN/SE/WN/WE) MVA	$1,185,094	$1,185,094	SPS	TO	4485094 4481575 4483603 4482152 4485630 4484057 4481849 4483989 4483052 4482400 4480611 4482051 4482624 4483891 4481741 4480320		*										
Install a new 12 MVAR capacitor bank at the Texoma 138kV Substation	$556,322	$900,000	WFEC	TO	4513369 4514130 4514050 4515548 4514956 4470417 4469799 4469926 4435234		*										
Rebuild 5.09-mile 138kV line from Gracemont to Anadarko and upgrade any necessary equipment to increase the summer emergency rating to 382 or 478 MVA	$4,734,799	TBD	WFEC		2019ITPE1N022 2019ITPE2N019					+		+	+		+		
Tap the existing 345kV line from Neosho to La Cygne 45% from Neosho near Marmaton at new NEWSUB 345kV substation Build a new 345kV line from Wolf Creek to NEWSUB 345kV with a summer emergency rating of 1792 MVA	$98,117,654	$78,307,917	WERE	TO and Third Party	2019ITPE1N001 2019ITPE2N001 2019ITPE1N006 2019ITPE2N004 2019ITPE1N007 2019ITPE2N005 2019ITPE1N027 2019ITPE2N033					+	+	+	+	+	+		
Upgrade any necessary terminal equipment at Valiant and/or Hugo to increase the rating of the 138kV line between the two substations to 299/353/381/421 (SN/SE/WN/WE) MVA	$484,568	$10,600	WFEC	TO	2019ITPE2N022								+	+	+		
Rebuild 22.18 miles of 138kV line from Webb Tap to Osage to 2000A capacity and upgrade any necessary terminal equipment to increase the summer emergency rating to 478 MVA Rebuild 0.34 miles of 138kV line from Webb Tap to Fairfax to 2000A capacity and upgrade any necessary terminal equipment to increase the summer emergency rating to 478 MVA Rebuild 2.36 miles of 138kV line from Fairfax to Shidler to 2000A capacity and upgrade any necessary terminal equipment to increase the summer emergency rating to 478 MVA	$23,539,415	$38,452,969	AEPW/OKGE	TO	2019ITPE1N011 2019ITPE2N012					*		*	*		*		Projects paired together for a more comprehensive solution since the first posting
Install a new 12 MVAR capacitor bank at Gypsum 69 kV substation	$490,093	$490,093	WFEC	TO	4417240 4416343 4450626 4449875		+										
Rebuild 28.41 miles of 161kV line from Neosho to Riverton and upgrade any necessary terminal equipment to increase the summer emergency rating to 557 MVA	$27,113,510	$32,456,162	EMDE/WERE	TO and Third Party	2019ITPE1N007 2019ITPE2N005					*	*	*	*	*	*	Yes	
Install a new 12 MVAR capacitor bank at Lebanon 138 kV substation	$556,322	$900,000	WFEC	TO	4513369 4514050 4514130 4515548 4514956 4470417 4469799 4469926 4435234		0										
Rebuild 43.1-mile 161kV line from LaRussell to Springfield and upgrade any necessary equipment to increase the summer emergency rating to 557 MVA	$41,133,130	TBD	EMDE/SWPA		2019ITPE1N003 2019ITPE2N003					++	++	++	++	++	++		
Upgrade any necessary terminal equipment at Neosho to increase the rating of the 345kV line between the Neosho and a new tap substation on the Neosho - La Cygne 345kV line (45% from Neosho) to a summer emergency rating of 1159 MVA	$220,763	TBD	KCPL/WERE		2019ITPE1N001 2019ITPE2N001 2019ITPE1N006 2019ITPE2N004 2019ITPE1N007 2019ITPE2N005 2019ITPE1N027 2019ITPE2N033					++	++	++	++	++	++		

						Top Projects Considered for Reliability Portfolios				Top Projects Considered for Economic Groupings							
General Description	Conceptual Cost Estimate	Study Cost Estimate	Transmission Owner(s)	Study Cost Estimate Source	Need ID	Short Circuit	Base Reliability	F1 Market Powerflow	F2 Market Powerflow	F1 CE Grouping	F1 HN Grouping	F1 MV Grouping	F2 CE Grouping	F2 HN Grouping	F2 MV Grouping	Currently Evaluated as part of MISO CSP	Comments
Build a new 138kV line from (WFEC) Lebanon Tap to (OG&E) Russett with a summer emergency rating of 234 MVA and install a new 3 breaker 138kV ring bus at Lebanon Tap	$18,066,805	TBD	OKGE/WFEC		4518372 4517079 4516428 4435234 4513369 4514050 4514130 4515548 4514956 4470417 4469799 4469926 4457133 4473270		++										
Build a new second 138kV line from Caney Creek to Texoma Junction with a summer emergency rating of 234 MVA	$3,363,527	TBD	OKGE/WFEC		4513369 4514050 4514130 4515548 4514956 4470417 4469799 4469926 4435234		++										
Upgrade any necessary terminal equipment at Cimarron and/or Draper to increase the rating of the 345kV line between the two substations to 2246/2578/3902/3140 (SN/SE/WN/WE) MVA	$2,232,847	TBD	OKGE		2019ITPE1N009 2019ITPE2N009 2019ITPE1N011 2019ITPE2N012 2019ITPE1N012 2019ITPE2N011						++	++		++	++		Project is to address potential downstream thermal overloads
Reconductor 5.6 miles of 161kV line from Kerr to Maid Ckt 1 and upgrade any necessary terminal equipment to increase the summer emergency rating to 836 MVA	$6,206,906	TBD	GRDA		2019ITPE1N010 2019ITPE2N010					++	++	++	++	++	++		
Build a new 345kV line from Cleveland to Sooner with a summer emergency rating of 1792 MVA	$57,693,353	TBD	GRDA/OKGE		2019ITPE1N009 2019ITPE2N009 2019ITPE1N011 2019ITPE2N012 2019ITPE1N012 2019ITPE2N011						++	++		++	++		
Build a new 345kV line from Cleveland to Tulsa North with a summer emergency rating of 1792 MVA	$48,978,345	TBD	GRDA/AEPW		2019ITPE1N009 2019ITPE2N009 2019ITPE1N011 2019ITPE2N012 2019ITPE1N012 2019ITPE2N011						++	++		++	++		
Build a new 345kV line from Cleveland to Wekiwa with a summer emergency rating of 1792 MVA	$34,860,031	TBD	GRDA/AEPW		2019ITPE1N009 2019ITPE2N009 2019ITPE1N011 2019ITPE2N012 2019ITPE1N012 2019ITPE2N011						++	++		++	++		
Rebuild 37.09-mile 161kV line from Raun to Tekamah and upgrade any necessary equipment to increase the summer emergency rating to 557 MVA	$35,397,398	TBD	MEC/OPPD		CSP: Raun - Tekamah 161kV											Yes	
Rebuild 20.87-mile 161kV line from S1226 to Tekamah and upgrade any necessary equipment to increase the summer emergency rating to 557 MVA	$19,917,598	TBD	OPPD		CSP: Raun - Tekamah 161kV											Yes	

Need ID	Need Common Name	Model Correction	Comments
2019ITPE1N002 2019ITPE2N002	Clinton to Trumann 161kV FLO Overton to Sibley 345kV	Clinton to Trumann to Lost Valley 161 kV Ratings Correction based member feedback	Identified model correction resolves Economic need
2019ITPE1N008 2019ITPE2N006	Coffman to Huben 161kV FLO Franks to Huben 345kV	Coffman to Huben 161 kV Ratings Correction based on 2020 ITP models	Identified model correction resolves Economic need
2019ITPE1N015	Hale County to Tuco 115kV FLO Swisher to Tuco 230kV	Hale County to Tuco 115 kV Ratings Correction based on member feedback	Identified model correction resolves Economic need
2019ITPE1N017 2019ITPE2N016	S Shv to Wallace Lake 138kV FLO Fort Humbug to Trichel 138kV	Load adjustment for 10-year models	Identified model correction resolves Economic need
2019ITPE1N014 2019ITPE2N014	Hankinson to Wahpeton 230kV FLO Buffalo to Jamestown 345kV	Hankson to Wahpeton 230 kV Ratings Correction based on MTEP Information	Identified model correction resolves Economic need
2019ITPE1N024 2019ITPE2N029	Potter Co to Bushland 230kV FLO Potter Co to Newhart 230kV	Potter County to Bushland 230 kV Ratings Correction based on member feedback	Identified model correction resolves Economic need
2019ITPE1N025 2019ITPE2N020	Sioux City to Sioux City 230kV FLO Raun to Sioux City 345kV	Sioux City 230 kV Bus Tie Ratings Correction based on member feedback	Identified model correction resolves Economic need
2019ITPE2N032	Maryville to Clarinda 161kV FLO Maryville to Maryville E 161kV	Maryville to Clarinda 161 kV Ratings Correction based on member feedback	Identified model correction resolves Economic need
2019ITPE1N018	Kildare to White Eagle 138kV FLO Woodring to Hunter 345kV	Kildare to White Eagle 138 kV Rebuild (AQ Sponsored Upgrade)	Identified model correction resolves Economic need
2019ITPE1N004 2019ITPE2N007	Carthage Southwest to Purcell 161kV FLO Asbury Plant to Carl Junction 161kV		No solution identified for Economic need
2019ITPE1N005 2019ITPE2N008	Asbury to Carl Junction 161kV FLO Asbury to Purcell Southwest 161kV		No solution identified for Economic need
2019ITPE1N019	Marshall to Smittyville 115kV FLO Harbine to Steele 115kV		No solution identified for Economic need
2019ITPE2N025	Grand Forks to Falconer 115kV FLO Drayton to Prairie 230kV		No solution identified for Economic need