

Generation	Project	Scenario			Cost (\$ in Millions)			\$ Change	Justification
		Prior CPCN Case	Update	Double Circuit	Prior CPCN Case	Update (Single-Circuit)	Double-Circuit		
Liberty RICE	Construct a new 161 kV Switching Station ("Liberty RICE Substation") along the Casey County-Liberty Junction 161 kV Line	✓	✓	✓	\$12.00	\$12.00	\$12.00	-	No change from Case No. 2024-00370
	Construct necessary transmission line facilities to loop the existing Casey County-Liberty Junction 161 kV Line into the new Liberty RICE Substation	✓	✓	✓	\$1.50	\$1.50	\$1.50	-	
	Install OPGW on the Liberty RICE - Casey County 161 kV Line (6.6 miles)	✓	✓	✓	\$0.80	\$0.80	\$0.80	-	
	Install OPGW on the Liberty RICE - Liberty Junction 161 kV Line (7.4 miles)	✓	✓	✓	\$1.01	\$1.01	\$1.01	-	
	Rebuild the Liberty RICE-Liberty Junction 161 kV Line using 795 MCM ACSR conductor (7.8 miles)	✓	✓	✓	\$13.70	\$13.70	\$13.70	-	
	Increase the maximum conductor operating temperature ("MOT") of the 636 MCM ACSR conductor in the Liberty RICE-Casey County 161 kV Line to 212 degrees F (6.2 miles)	✓	✓	✓	\$1.95	\$1.95	\$1.95	-	
	Increase the MOT of the 795 MCM ACSR conductor in the Marion County-Marion County Industrial Park Tap 161 kV Line to 212 degrees F (4.0 miles)	✓	✓	✓	\$1.15	\$1.15	\$1.15	-	
	Rebuild the Marion County-Lebanon 138 kV Line using 954 ACSR conductor (0.1 mile)	✓	✓	✓	\$0.20	\$0.20	\$0.20	-	
	Install a 100 MVA transformer at Liberty Jct to replace the existing 93 MVA unit.	✗	✓	✗	-	\$4.00	-	\$4.00	Added as a result of the refreshed studies using updated modeling information for the single-circuit Cooper-Alcalde line, then removed under the double-circuit scenario.
	Lebanon 138/69 transformer overloads: Add a second transformer at or near Lebanon	✗	✓	✓	-	\$9.20	\$9.20	\$9.20	
Cooper CCGT	Campbellsville Tap-Taylor Co 69 kV line: reconductor 0.38 miles using a minimum of 397 ACSR conductor	✗	✓	✓	-	\$0.95	\$0.95	\$0.95	Added as a result of the coordination with LG&E/KU.
	Mile Lan Tap-Campbellsville 69 kV line: Reconductor 2.21 miles with 556.5 MCM 26x7 ACSR	✗	✓	✓	-	\$5.53	\$5.53	\$5.53	
	Lebanon-Springfield KU 69 kV: Reconductor 6.58 miles with 556.5 MCM 26x7 ACSR	✗	✓	✓	-	\$16.45	\$16.45	\$16.45	
	Total				\$32.31	\$68.44	\$64.44		
	Construct a new 161 kV substation for termination of the combined-cycle units (3 CSUs) and re-terminate existing Cooper-Laurel Dam and Cooper-Denny 161 kV lines into the new substation.	✓	✓	✓	\$25.00	\$25.00	\$25.00	-	No change from Case No. 2024-00370
	Construct a new Cooper Alcalde 161 kV line (5.25 miles) using 1272 ACSS conductor (Single-Circuit)	✓	✓	✗	\$11.15	\$15.10	-	\$3.95	Cost increase of the single-circuit Cooper-Alcalde line associated with due to construction labor cost escalations, rising material costs, and tariff considerations
	Construct a new Cooper Alcalde 161 kV line (5.25 miles) using 1272 ACSS conductor (Double-circuit)			✓		\$20.13	\$20.13	\$8.98	Cost escalation as a result under estimation on EKPC's part for the cost associated with upgrades on LG&E/KU's system.
	Replace all 161 kV circuit breakers at Cooper with 63 kA breakers.	✓	✓	✓	\$3.00	\$3.00	\$3.00	-	No change from Case No. 2024-00370
	Rebuild the Cooper-Elihu 161 kV line (4.2 miles) using 1272 ACSS conductor	✓	✓	✓	\$10.33	\$10.33	\$10.33	-	
	Increase the MOT of the Laurel Dam-Laurel County 161 kV line (13.5 miles) to 212 degrees F	✓	✓	✓	\$3.85	\$3.85	\$3.85	-	
	Rebuild the South Lancaster-Garrard County 69 kV line (1.8 miles) using 556 ACSR conductor	✓	✗	✗	\$1.82	-	-	(\$1.82)	Removed as a result of the refreshed studies using updated modeling information.
Cooper CCGT	Upgrade the Cooper 161/69 kV transformer with a 200 MVA unit, and purchase a spare 200 MVA transformer	✓	✓	✓	\$6.70	\$6.70	\$6.70	-	No change from Case No. 2024-00370
	Upgrade the Marion County 161/138 kV transformer with a 300 MVA unit and purchase a spare 300 MVA transformer	✓	✓	✓	\$8.83	\$8.83	\$8.83	-	
	Increase the MOT of the Casey County-Marion County 161 kV line (17.8 miles) to 212 degrees F	✓	✓	✓	\$5.08	\$5.08	\$5.08	-	
	Rebuild the Cooper - Laurel River Dam 161 kV line with 954 ACSR to replace the existing 795 ACSR conductor. (17.32 miles)	✗	✓	✗	-	\$19.80	-	-	
	Rebuild the Cooper - Somersett 69kV double circuit line with 556 ACSR replacing the existing 266 ACSR conductor. (3.2 miles)	✗	✓	✗	-	\$5.03	-	-	No change from Case No. 2024-00370
	Increase the MOT on Taylor Co Jct-AF1-038 795 ACSR conductor to 212 degrees F. (0.92 miles)	✓	✓	✓	-	\$0.28	\$0.28	\$0.28	
	KU constructs a 345 kV bus at the Alcalde substation and installs a 2nd Alcalde 345/161 kV transformer	✓	✓	✓	\$18.00	\$24.60	\$24.60	\$6.60	No change from Case No. 2024-00370
	KU expands the 161 kV bus at the Alcalde substation to accommodate the new Cooper - Alcalde 161 kV circuit. (Single-Circuit)	✗	✓	✗	-	\$2.00	-	\$2.00	Added as a result of re-evaluation of the scope of the new Cooper-Alcalde 161 kV line. This line item ensures consideration of expenses on LG&E/KU's system are accounted for.
	KU expands the 161 kV bus at the Alcalde substation to accommodate the new Cooper - Alcalde 161 kV circuit. (Double-Circuit)			✓		\$4.00	\$4.00	\$4.00	
	Lebanon-Springfield KU 69 kV: Reconductor 6.58 miles with 556.5 MCM 26x7 ACSR[1]	✓	✗	✓	\$9.78	-	-	(\$9.78)	Removed as a result of coordination with LG&E/KU. However, LG&E/KU identified this project as needed due to the Liberty RICE installation.
	Alcalde-Elihu 161kV line: Reconductor 2.94 miles with 954 ACSR[2]	✓	✓	✓	\$5.90	-	-	(\$5.90)	
	Alcalde-Farley 161 kV: MOT increase of the existing line (27.19 miles)	✓	✓	✓	\$11.69	\$20.40	\$20.40	\$8.71	
Corbin CCGT	Farley - Artemus Tap 161 kV: MOT increase of the existing line (12.77 miles)	✓	✗	✗	\$5.49	-	-	(\$5.49)	Removed as a result of coordination with LG&E/KU..
	Springfield KU - N Springfield 69 kV line: reconductor 3.24 miles of line with 397.5 MCM 18x1 ACSR	✗	✓	✗	-	\$8.10	-	-	No change from Case No. 2024-00370
	Corbin East-Sweet Hollow 69 kV line: reconductor 2.2 miles using a minimum of 556 ACSR conductor	✗	✓	✓	-	\$5.50	\$5.50	\$5.50	Added as a result of the coordination with LG&E/KU.
	Corbin 1-Corbin 2 69 kV line: reconductor 0.67 miles using a minimum of 556 ACSR conductor	✗	✓	✗	-	\$1.68	-	-	No change from Case No. 2024-00370
	Total				\$126.60	\$165.28	\$137.70		
		Grand Total			\$158.91	\$233.72	\$202.14		

[1] Project identified in EKPC initial analysis related to the Cooper CCGT, LG&E/KU results identified the project needed due to Liberty RICE. Cost total for the update does not reflect this project for Cooper CCGT.

[2] LG&E/KU has an existing project to replace the conductor in the Alcalde to Elihu 161kV line. There is no cost included, since it is expected that the new conductor will provide the sufficient capacity needed after the generation additions. This line item will be removed from all future tables displaying projects and cost.