

Ute Undergrounding

Item	Quantity	Unit cost	Cost
Design	NA	NA	\$ 150,000
SCE Upgrade C	NA	NA	\$ 453,438
Civil Work (UG	NA	NA	\$ 1,000,000
Vaults	13	\$ 20,000	\$ 260,000
Meter Cabinet	NA	NA	\$ 150,000
Swtiches	2	\$ 75,000	\$ 150,000
Line 35kV 750 B	39,000	\$ 8.61	\$ 335,790
Misc Materials	NA	NA	\$ 20,000
Labor - Electric	NA	NA	\$ 270,000
Removal of Ob	NA	NA	\$ 270,000
Overhead	NA	NA	\$ 400,759
Total Cost			\$ 3,459,987

Fuse Upgrades

June 2019 to May 2020

Item	Unit Cost	Quantity	Cost	Comments
Electronic Fuses	\$ 5,300.00	230	\$ 1,219,000.00	Tripsaver (\$2,800) + Communication Unit (\$2,500)
Labor cost per location Electronic Fuses	\$ 784.00	230	\$ 180,320.00	2 hours with a 3 man crew/location = \$784
Electronic Fuse Contingency*	NA	NA	\$ 139,932.00	
Current Limiting ELF	\$ 160.00	1163	\$ 186,080.00	\$160/fuse
Labor cost per location Current Limiting ELF	\$ 392.00	1163	\$ 455,896.00	1 hour with a 3 man crew/location = \$392
Current Limiting ELF Contingency*	NA	NA	\$ 64,197.60	
Overhead	NA	NA	\$ 294,150.75	
Total Cost			\$ 2,539,576.35	

*Due to wide variance on cost based on experience, a 10% contingency is added to cover the uncertainty.

June 2020 to May 2021

Item	Unit Cost	Quantity	Cost	Comments
Electronic Fuses	\$ 5,300.00	227	\$ 1,203,100.00	Tripsaver (\$2,800) + Communication Unit (\$2,500)
Labor cost per location Electronic Fuses	\$ 784.00	227	\$ 177,968.00	2 hours with a 3 man crew/location = \$784*
Electronic Fuse Labor Contingency	NA	NA	\$ 138,106.80	
Current Limiting ELF	\$ 160.00	1164	\$ 186,240.00	\$160/fuse
Labor cost per location Current Limiting ELF	\$ 392.00	1164	\$ 456,288.00	1 hour with a 3 man crew/location = \$392*
Current Limiting ELF Labor Contingency	NA	NA	\$ 64,252.80	
Overhead	NA	NA	\$ 291,600.18	
Total Cost			\$ 2,517,555.78	

*Due to wide variance on cost based on experience, a 10% contingency is added to cover the uncertainty.

Covered Conductor Replacement Pilot Program

Item	Quantity (Circuit miles)	Unit Cost	Cost	Comments
Cover Conductor	18000	\$ 4	\$ 72,000	
Covers for insulators/dead ends/cutouts	NA	NA	\$ 50,000	
Labor	NA	NA	\$ 320,000	Bidder quotes
Overhead			\$ 15,982	
			\$ 457,982	

Covered Conductor Wrap Pilot Program

Item	Quantity (Circuit miles)	Unit Cost	Cost	Comments
Cover Conductor	18000	\$ 6	\$ 110,700	
Covers for insulators/dead ends/cutouts	NA	NA	\$ 50,000	
Labor	NA	NA	\$ 110,000	Bidder quotes
Overhead			\$ 21,052	
			\$ 291,752	

Radford Line Covered Conductor Replacement Project

Scope of Work	Quantity (Circuit miles)	Unit Cost	Cost	Comments
Reconductor with covered conductor on fire resistant poles, & remove obsolete facilities (includes helicopter pole sets)	2.82	\$ 790,000	\$ 2,227,800	Bidder quotes
Overhead 13.1%	NA	NA	\$ 291,842	
Total Cost			\$ 2,519,642	

Inspections

Inspection Type	Scope of Work	Quantity	Cost/Unit	Total Cost	Comments
Second Annual On-Ground Inspection (patrol) by 3rd Party	Inspection entire overhead system (211 miles)	1	\$ 90,000	\$ 90,000	Based on 211 line miles - quotes from bidders
LIDAR Inspection	LIDAR sweep of entire overhead system (211 miles)	2	\$ 110,000	\$ 220,000	1 sweep at start of plan and 1 at plan completion - quotes from bidders

Weather Stations & Consulting

Cost Item	Scope	Quantity	Unit Cost	Total Cost	Comments
Weather Stations (Orion) - Equipment & Materials	Equipment, power supplies, & mounting materials	10	\$ 8,700	\$ 87,000	Based on past purchases
Labor to Install	3-man crews (1 Foreman + 2 Linemen)	52	\$ 253	\$ 13,161	Based on past experience
SCADA Integration	Integrating with SCADA	1	\$ 10,000	\$ 8,000	Based on past experience
Overhead	Overhead rate is 13.1%	NA	NA	\$ 14,169	
Total				\$122,330	
		Quantity	Unit Cost	Total Cost	
Weather Forecasting Services	8 hours per week of weather forecasting & evaluation services for 52 weeks	416	\$ 113	\$ 46,800	Based on quotes

Hourly Rate (includes burden)	
Light Crew Foreman	\$ 91.03
Lineman	\$ 81.03
Lineman	\$ 81.03
Total for 3-man Crew	\$ 253.10

Wildfire Infrastructure Protection Team (WIPT) - PSPS

Estimated Events Requiring WIPT Mobilization (per year)	Average Event Duration (hours)	Annual Estimated Hours Requiring WIPT Mobilization	Number of WIPT Overtime Hours	Number of WIPT's (2-man crews)	Unit OT Cost per WIPT	Total Annual OT WIPT Cost Estimate	Overtime Hourly Rate (includes burden)	
5	11	55	41.9	3	\$ 336.10	\$ 42,252.55	Service Crew Foreman	\$ 174.03
							Lineman	\$ 162.07
							Total for 2-man Crew	\$ 336.10

Each Wildfire Infrastructure Protection Team (WIPT) consists of a 2-man Service Crew