

Colorado Long Range Transmission Planning Cost Estimates

During the CLRTP Study process participants agreed to estimate the overall required transmission investment by using a combination of budgeted cost estimates and generic cost estimates. Facility additions that were confirmed to be required in the CLRTP studies and that were already in a participant's capital budget, were estimated in a manner consistent with the existing budget. Facility additions that were identified for the first time in the CLRTP studies and, therefore, not presently budgeted in a participant's capital budget, were estimated utilizing generic planning level cost estimates.

As a source for 345 kV and 230 kV generic planning level cost estimates, the study participants utilized the cost estimates developed during the Colorado Generation Project study. Adjustments for inflation to 2004 dollars were made to develop the CLRTP Infrastructure Unit Transmission Costs. The generic cost estimates were further augmented with planning level estimates for 115 kV facilities. The generic costs include estimates for siting and right of way.

The general inflation rate was 2.5 % for adjusting to 2004 dollars.

Table 1. CLRTP Transmission Infrastructure Unit Transmission Costs

Unit transmission	Unit Transmission Costs in 2004 dollars
345 KV Line	\$ 525,312 per mile, includes R/W, Environmental and siting.
230 KV Line	\$ 315,187 per mile, includes R/W, Environmental and siting.
115 KV Line Rate change, reduce sag.	\$ 60,000 per mile, No R/W, Environmental and siting.
115 KV Line Upgrade 477 ACSR to 795 ACSR	\$ 100,000 per mile, No R/W
115 KV Line New Construction 477 ACSR	\$ 200,000 per mile, including R/W , Environmental and siting.
115 KV Line New Construction 795 ACSR	\$ 225,000 per mile, including R/W, Environmental and siting.
115 KV Line New Construction 954 ACSR	\$ 250,000 per mile, including R/W, Environmental and siting.
345/230 KV 500 MVA transformer	\$ 2,625,663 per bank
345/230 KV 600 MVA transformer	\$ 5,253,125 per bank
230/115 KV 150 MVA transformer	\$ 1,210,320 per bank
115/69 KV 50 MVA transformer	\$ 561,000 per bank
115/69 KV 25 MVA transformer	\$ 350,000 per bank