

**BASIC LINE COST BREAKDOWN
SUMMARY SHEET**

Project Title: 400kV Garona-Aries Line- Compact Crossrope Design option 2
 Project Number: TBA
 Estimate Date: 30-Jul-06
 Prepared by: S Natesan
 Line length: 124.00 kilometers
 Line Voltage: 400 kV

Escalated to date: 30-Jul-06

Item	Base Cost	Access factor	Esc. factor	Length factor	Totals	Cost/km	%
P&G % Constr cost: 18%	14,947,975	1.00	N/A	1	14,947,975	120,548	9.4%
Access & Environmental Rehab % Constr cost: 7%	5,528,703	1.02	N/A	1	5,651,717	44,586	3.6%
Minor Works % Constr cost: 4%	3,173,748	1.00	N/A	1	3,173,748	25,595	2.0%
Foundations	8,752,265	1.02	1.036	1	9,267,985	70,583	5.8%
Tower supply 295 towers	31,414,405	1.00	1.032	1	32,411,609	253,342	20.4%
Tower erection	4,964,556	1.02	1.032	1	5,236,100	40,037	3.3%
Stringing and Tower D Print Details 3 bundle	9,015,836	1.02	1.255	1	11,568,140	72,708	7.3%
Hardware	6,155,600	1.00	1.220	1	7,508,248	60,550	4.7%
Insulators	3,366,262	1.00	1.163	1	3,916,517	31,585	2.5%
Conductor Tern Un-greased @ R 42.91 /m	35,433,000	1.00	1.351	1.03	49,318,527	397,730	31.0%
Earthwire No.1 19/2.7 Un-greased @ R 10.45 /m	1,240,000	1.00	1.045	1.03	1,334,386	10,761	0.8%
Earthwire No.2 OPGW(48 core Un-greased @ R 104.48 /m	12,400,000	1.00	1.045	1.03	13,343,864	107,612	8.4%
Transport	908,760	1.00	1.294	1	1,176,332	9,487	0.7%
Other Costs:					0	0	0.0%

Total Steel tonnage	=	2041 tons
	=	6.9 tons / tower
	=	16.5 tons / km
Cost of dressed towers	=	R 456,097 / km

Construction contract	R82,257,174	R663,364
Material Supply	R76,597,875	R617,725
Other	R0	R0



Basic Cost/km **BASIC LINE COST R158,855,049 R 1,281,089**
TAP DESIGN & PM FEES R 3,897,905 2.5%
 T&S Disbursements: R 290,759
 Site Supervision: R 2,845,980
TOTAL COST R 165,889,694 R 1,337,820

Construction contract	R82,257,174	R663,364
Material Supply	R76,597,875	R617,725
Other	R0	R0
TOTAL COST	R 165,889,694	R 1,337,820

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Design, Pij Mgt & supervision R 7,034,645 R 56,731 4.4%

We estimate the total cost for this project at R166m (R1.34m per km). The basic cost (construction and material supply) is estimated at R159m (R1.28m per km). Design, Project Management & Site supervision costs will amount to R7m (R0.06m per km), or 4.4% of the project total.