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Analysis of energy consumption, economics and management at New Denmark Colliery

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Electricity Cost Forecast for New Denmark Colliery						
	2011	2012	2013	2014	2015	2016
Production (t)	5,602,906	5,134,423	4,942,688	4,754,832	5,336,079	5,314,998
	Comment: Production scheduling profile of the mine was used to forecast electricity consumption					
Forecast Electricty Consumption (MWh)	91,335	89,248	88,394	87,557	90,146	90,052
	Comment: Cost increase = Eskom tarrifs					
Cost increase	24.8%	25.8%	25.9%	10.0%	10.0%	10.0%
	Comment: Average Electricity Cost (cuurent year) = Average electricity cost (previous year) x Cost increase					
Average electricity cost (c/kWh)	R 0.5055	R 0.6359	R 0.8006	R 0.8807	R 0.9688	R 1.0656
	Annual Savings = Forecast electricity consumption x Average electricity cost					
Total Cost of Electricity (R's)	R 46,169,843	R 56,754,499	R 70,770,183	R 77,110,069	R 87,329,176	R 95,961,925
Cummulative Electricity Cost (R's)	R 46,169,843	R 102,924,341	R 173,694,524	R 250,804,593	R 338,133,769	R 434,095,693
Cashflow (R's)	R 46,169,843	R 56,754,499	R 70,770,183	R 77,110,069	R 87,329,176	R 95,961,925
Total Electricity Cost over 6 years	**R 434,095,693**					
Normalised Annual Electricity Cost	**R 72,349,282**					