

PROJECT COST ANALYSIS

AC LIGHTING VS VERTICAL SOLAR LIGHTING

APPLICATION: PATHWAY 2M WIDE (6FT)
 DISTANCE: 1.5KM LONG (1 MILE)
 ILLUMINATION: 0.85 LUX AVERAGE

AC POWERED

AC Powered 14w Luminaire + Pole

Product Supply - Luminaire + Pole	
Pole Spacing in meters	58
Pole Height Meters	7
WE-EF LED Luminaire	\$1,500
Street Pole	\$1,000.00
Pole powder coating	\$400.00
Number of fitting over the 1.5Km pathway	26
TOTAL PRODUCT supply cost for 26 Systems	\$75,400.00

Installation of pole + Foundation cost	
ROUGH- Concrete Costs / pole	\$60.00
ROUGH- Hole size L x W x H	400 x 400 x 1000
Rebar	\$50.00
Labour cost per pole	\$350.00
TOTAL Installation cost for 26 Poles + Foundations	\$11,960.00

Trenching / Reticulation + Cable installation cost	
Equipment hire	\$2,200.00
Trenching cost \$195/m x 1.5km	\$292,500.00
Total Earthworks and Cable cost	\$294,700.00

20 Year Maintenance and Electricity Costs	
20 year electrical costs + Maintenance - \$380 / pole / Year	\$197,600.00
20 year battery replacement battery cost	\$0.00
TOTAL PRICE INSTALLATION	\$197,600.00
TOTAL ESTIMATED COST SUPPLY + INSTALL	\$579,660.00

ARCHITECTURAL SOLAR

Vertaic Column Power Station + 14w Luminaire + Pole

Product Supply - Luminaire + Pole	
Pole Spacing in meters	58
Pole Height Meters	7
WE-EF LED Luminaire	\$1,500
Pole + Power vPS-M60-XX-XX-XX-FN-BKA	\$5,400.00
Black Anodise	\$0.00
Number of fittings over the 1.5Km pathway	26
TOTAL PRODUCT supply cost for 26 Systems	\$179,400

Installation of pole + Foundation cost	
ROUGH- Concrete costs	\$60.00
ROUGH- Hole size L x W x H	400 x 400 x 1000
Rebar	\$50.00
Labour cost per system	\$140.00
TOTAL Installation cost for 26 Poles + Foundations	\$6,560.00

Trenching / Reticulation + Cable installation cost	
Equipment hire	\$0.00
Trenching costs	\$0.00
Total Earthworks and Cable cost	\$0.00

20 Year Maintenance and Electricity Costs	
20 year electrical costs	\$0.00
20 year maintenance costs (\$45 / pole / year)	\$24,300.00
20 year battery replacement including labour	\$25,000.00
TOTAL PRICE INSTALLATION	\$58,000.00
TOTAL ESTIMATED COST SUPPLY + INSTALL	\$243,960.00

**YOU WILL SAVE \$335,700
 WHICH IS AROUND 60% BY GOING SOLAR**

Notes

1. AC powered lighting maintenance includes Electricity charges as well as pole and luminaire maintenance
2. Batteries will need to be replaced only once over a 20 year period which is shown in the above example
3. Most regions and countries will have different electrical standards, Trenching, cable and labour requirements (add and subtract where necessary to suit local conditions)

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