

## LED TUBE SAVINGS TABLE ON APPLICATION

A comparison to fluorescent tube – a non-sustainable & inefficiency lighting with mercury toxic content and further lead to contribution to additional emission of carbon dioxide

LED TUBE SAVINGS TABLE – 8watt / 18watt / 21watt The payback period is of its lifespan on invested capital of LED tube								
category	lifespan/ hour	6hour/day/ watt / 10 units	365 days/ Kwh	\$ Energy cost / year	CO2*/ tonne 10 lamps	\$ cost of carbon***	energy saving Kwh / carbon Kg	\$ saving on power bill***
Fluoro 600mm 16w - 240v	8,000	960+ 96 = 1,050**	383.25	\$76.65	0.53	\$13.25	0.00	\$0.00
LED 600mm 8w - 240v	8,000	480	175.20	\$35.05	0.25	\$6.25	305 / 427Co <sup>2</sup> -e	\$41.60
Fluoro 1200mm 32w - 240v	30,000	1920+192 = 2,112**	770.90	\$154.20	1.05	\$26.25	0.00	\$0.00
LED 1200mm 18w - 240v	30,000	1080	394.20	\$78.85	0.55	\$13.75	686 / 960.5Co <sup>2</sup> -e	\$75.35
Fluoro 1500mm 48w - 240v	30,000	2880+288 = 3,160**	1,153.40	\$230.70	1.62	\$41.25	0.00	\$0.00
LED 1500mm 21w - 240v	30,000	1,260	459.90	\$92.00	0.65	\$16.25	800 / 1,120Co <sup>2</sup> -e	\$138.70

**\*source from EPA – 1Kwh of brown coal electricity produces 1.4kg of CO<sup>2</sup>-e (carbon dioxide) or GHG (green house gas)**

**\*\*In retrofit application, existed ballast may draw a few more watts for its designed function. This value is varied between 10% to 100% of the wattage of the lighting source. 10% of the lamp wattage is added  
E.g. 8watt LED tube – will consume 8watt + 0.8watt of ballast = 8.8watt / per hourly operation**

**\*\*\*carbon is assumed at \$25.00 per tonne, and saving on utility bill to be factored @ \$20c per Kwh (extrapolated projection of future rate). This rate services are likely to increase to accommodate environmental and economic measures of climate changes issues**

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ES Consulting services  
 ABN: 11 405 462 023  
 Sustainable energy solutions  
 Sustainable products distributor  
 M: 0411 051 041  
 Website: [www.escservices.com.au](http://www.escservices.com.au)  
 Email: [info@escservices.com.au](mailto:info@escservices.com.au)