

COMMERCIAL LED LIGHTING UPGRADE CASE STUDY						
EXISTING LIGHTING	REPLACEMENT LED	ANNUAL ENERGY SAVING KWH	LED LIFE EXPECTANCY VS EXISTING LIGHTS	ANNUAL COST SAVINGS	SAVINGS (10 YEARS)	PAYBACK PERIOD
52 X 36W Fluoro's	16W LED T8 TUBES	2,945	> 50,000HRS V 5000 HRS	\$ 803.99	\$ 8,039.85	
8 X 400W METAL HALIDE HIGH BAYS	8 X 150W CREE LED HIGHBAYS	5,453	>50,000 HRS V 10,000 HRS	\$ 1,488.67	\$ 14,886.69	
TOTAL CUSTOMER SAVINGS		8,398		\$ 2,292.65	\$ 22,926.54	<b>1.8 YEARS</b>

**This client has reduced their carbon footprint by 11.44 tonnes per annum through the led upgrade.**

**No deductions taken into account for mantaince of the original lights**

COMMERCIAL SOLAR INSTALLATION CASE STUDY						
EXISTING ANNUAL ENERGY USE	ANNUAL ENERGY COST @ \$0.273 PER KWH	PV SOLAR SYSTEM INSTALLED	ENERGY PRODUCED FROM SOLAR	ENERGY OFFSET COST SAVINGS	SAVINGS (20 YRS)	PAYBACK PERIOD
17,360 KWH	\$ 4,739.28	32 X 195W MONOCRYSTALLINE PV PANELS (6.24KW)	9110.4 KWH ANNUAL	\$ 2,487.14	\$ 49,742.80	<b>4.02YRS</b>

**This client has further reduced their carbon footprint by 12.41 tonnes per annum through adding a PV Solar syste**

**NO CLAIMABLE TAXATION depreciation factors allowed in these calculations**

**ENERGY RATES HAVE BEEN ESTIMATED TO RISE 10% PER ANNUM**

**Case study based on the following Commercial property conditions.**

- 52 x T8 36watt fluoro tubes changed to 16watt LED tubes.
- 8 x 400watt highbay factory lights changed to 150watt CREE LED high bay lights.
- The Creation of VEECS has been used to subsidise the installation of the lighting.
- Installation of a 6.24KW PV Solar system
- Energy rates of \$0.273 per kwh used for calculations.

PAY BACK PERIOD ON COMBINING COMMERCIAL SOLAR AND LED UPGRADE						
EXISTING ANNUAL ENERGY USE	ANNUAL ENERGY COST @ \$0.273 PER KWH	REDUCTION IN ENERGY USE FROM LED UPGRADE	ENERGY PRODUCED FROM SOLAR	ANNUAL ENERGY OFFSET COST SAVINGS	SAVINGS (10 YRS)	PAYBACK PERIOD
17,360 KWH	\$ 4,739.28	8398 KWH ANNUAL	9110.4 KWH ANNUAL	\$ 4,779.79	\$ 47,797.94	<b>2.87</b>

**By combining the LED lighting up grade and solar installation the client benefits from the following :**

- Prior to adding the LED lighting upgrade and PV solar installation they were using 90kwh per day.
- Reducing their carbon foot print by 23.85 tonnes per year.
- Annual energy savings of \$4779.79
- Reduced there energy usage costs down to services charges only.
- Is heading in a direction towards a carbon neutral operation.
- PV solar life Calculated over 20years.
- Led lighting Calculated over 10years