

What creates an ESC

1 ESC (energy savings certificate = 1 tonne CO₂-e saved (just less than 1 MWh)

$\text{Old Load (W)} - \text{New Load (W)} \times \text{hours} \times 10 \text{ years} / 1000 = X \text{ MWh}$

Example:

Twin 36W T8 Recessed Troffer with B2 Ballast upgraded to 31W LED Panel located in air conditioned Office

2 x 36W (T8 Fluoro Tube) = 72W

2 x 8W (B2 Ballast) = 16W

Total Old Load = 88W

Less New Load = 31W

Energy Savings = 57W x 1.3 Factor for Air Conditioning

= 74.1W x 3,000 Hours (office)

= 222,300 WH x 10 Years / 1,000

= 2.22 MWH x 1.06 Emissions Factor

= 2.36 tCO₂-e/ESC