
**ENERGY EFFICIENT
LIGHTING
PROJECT**

**CLARENDON
TOWERS**



Clarendon Towers

Project Overview

Clarendon Towers is a residential apartment complex in Southbank. Large portion of the lighting in the common area of the complex is used 24 hours a day, seven days a week.

The building Committee of Management was presented with a proposal to upgrade the building lighting in common area to energy efficient LED in order to

- To reduce energy costs.
- To reduce increasing cost of maintenance of the original lighting as they were continually needing to be replaced.

LED lights use approximately 80%-85% less energy in comparison to traditional lights and also last significantly longer.

Significant cost savings and a shorter payback period was expected.

Key considerations when selecting products

- Compliance
 - The electromagnetic compatibility (EMC)
 - Australian Standards
- Product warranty & supplier
 - Minimum 3-year product replacement warranty
 - Reputable supplier
- LUX level (illumination) to ensure the lighting levels are maintained or improved.
- Colour temperature (3000k - 4000K)
- Brand of the product & the LED chip
- Power Factor (Closest to 1.0)
- Power lamp (W)
- Product & installation costs

Products

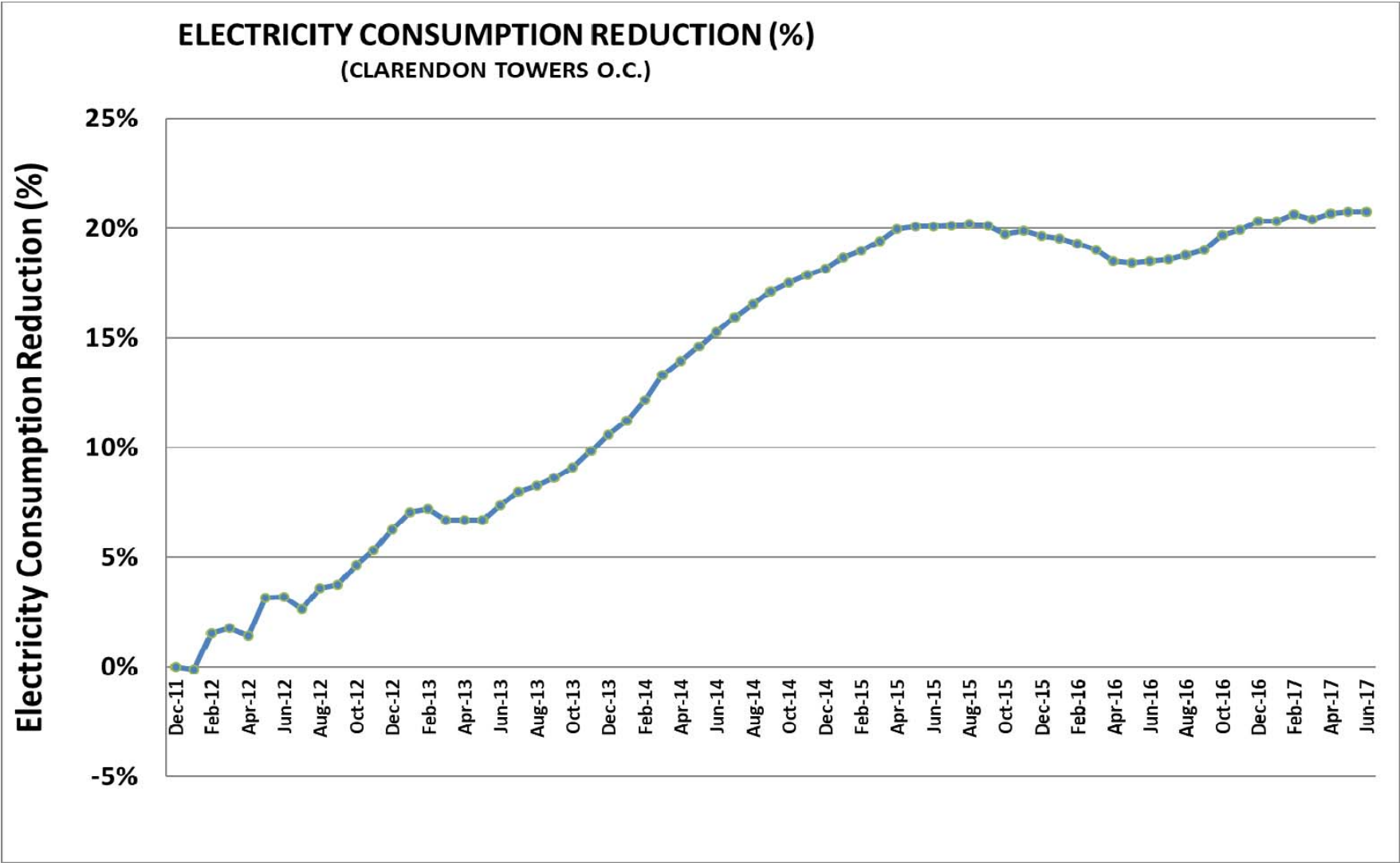
Old Product	Location	New LED Product
175W Metal halide light	Roof top feature light	40W LED flood lights
50W – 20W MR16 halogen lights	Corridors	5W LED GU10 downlights
36W 2ft double florescent lights	Fire stairwells	8W – 12W LED “Chamaeleon” motion activated lights
72W 4ft double florescent lights	Carparks	Weatherproof 18W single & 36W double LED tube fittings
Various halogen, fluorescent and neon feature lighting	Ground floor foyer & Exterior	Various LED feature lighting
36W 2ft double florescent lights	Refuse rooms	18W LED operated with motion sensor
10W spitfire	Emergency light	3W LED spitfire
10W emergency EXIT lights	Emergency light	3W LED emergency EXIT lights

LED Products

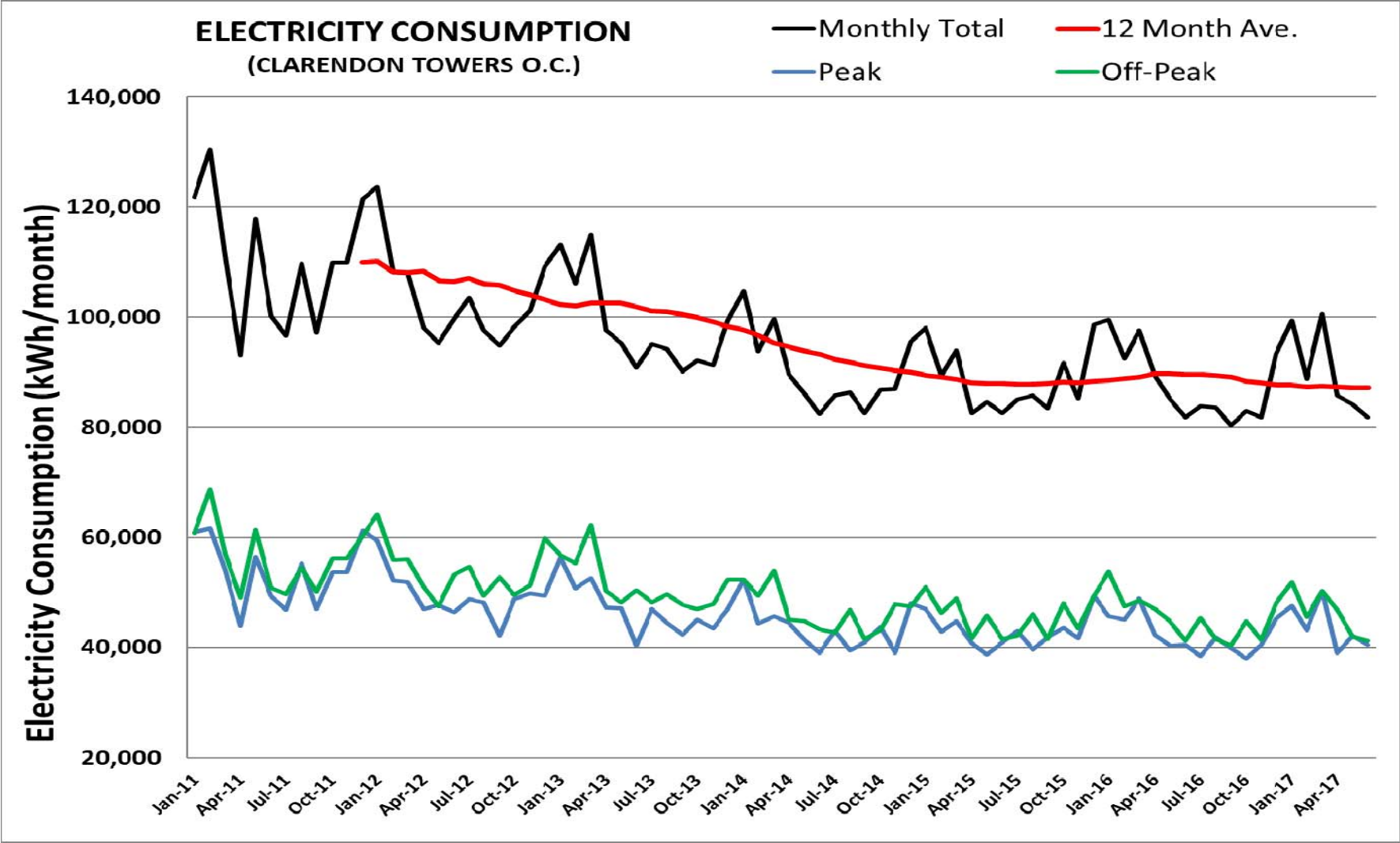


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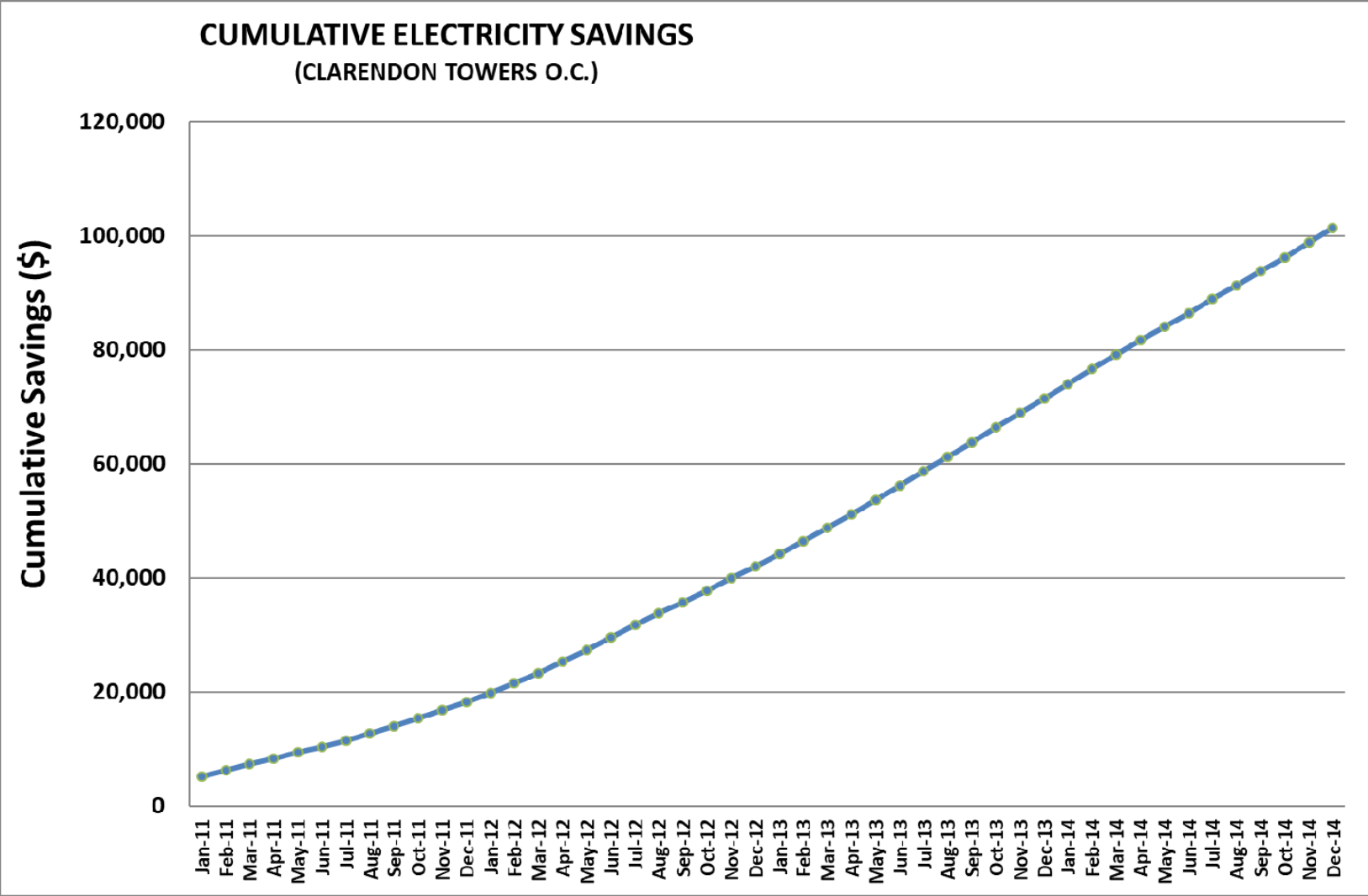
Electricity consumption Reduction



Total Electricity Consumption – 2011 To 2017



Cumulative Savings (Electricity Saving Only) - 2011 to 2014



Summary

Clarendon Towers lighting project was successfully completed over 4 year period and over 99% of the lighting in common area of the complex is now LED.

Actual payback of the project was 3 years