



Technical Memorandum

Subject: Load Profile Measurements Kings – Royal Brisbane Car Park Gilchrist Avenue Herston 4006	Control Ref No: 01-179
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	Supersedes: NA
Author: Power Quality Officer	Expiry Date: NA
Originating Dept: Power Quality Investigations Section - Field Tests Services Department	

Preamble

Request initiated by Electrical Power Conservation Systems to verify the “Light Eco” units are working in economy mode and reducing energy requirements.

Results

Results of measurements performed have been attached in Appendix A

Conclusion

From the measurements performed on the three final subcircuits supplying fluorescent lighting at distribution board, the “Light Eco” reduced total energy consumption for:

- total average currents, a reduction of approximately 37% applies.
- total average kW, a reduction of approximately 29% applies.

Power factor for the lighting circuits was improved from approximately, 0.81 to 0.93 with the “Light Eco” online on the final subcircuits specified.

Methology

Measurements performed at distribution board on Circuit Breakers 1 (Model LE 4.8), 3(Model LE 4.8) and 5(Model LE 4.8). All three final subcircuits were verified to be primarily fluorescent lighting load. Measurements were performed for 5 minutes with the following events:

1. the “Light Echo” in series with fluorescent lighting circuits.
2. turning circuit breakers 1,2 and 3 off and then back on.
3. bypassing “Light Echo” with fluorescent lighting circuits until timed period elapses.
4. transitional process to Economy mode of “Light Echo”.

Shane Sirl
A/ Power Quality Senior Officer
Power Quality Investigations Section
Field Tests Services

For Manager Field Tests Services Department

Appendix A

Figure 1 - Measurements performed to verify transitional process to Economy mode of "Light Echo" on Circuit Breakers 1,3 and 5.

