Continually improving your lighting experience

# Lighting Efficiency Upgrades

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Reduce energy usage & maintenance costs

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YUSEN LOGISTICS LYNDHURST, VIC



## Reduce your energy bill and improve the quality of your lighting

Leverage government rebates and capitalise on a fast ROI with an LED retrofit

#### At Aglo Systems we strive to improve sales and staff productivity for your business with retrofit LED lighting to suit your specific requirements.

Aglo Systems provides an end-to-end lighting retrofit solution that offers your business a consultation and assessment of your current lighting design. This solution includes a comprehensive report compiled by qualified lighting and electrical engineers which will demonstrate the proposed energy/financial savings; lighting improvements; product supply; project management; installation; and J6 compliance. We manage the application process for the available government subsidies, including generating certificates in the VEET and ESS schemes to ensure the highest benefits for you possible.

There are six simple steps to saving energy that better serves your bottom line:

#### 1. Assessment

As part of your energy efficiency lighting upgrade, we will assess your building once a commitment agreement is signed. We can then start to determine your current lighting specifications and power consumption.

#### 2. Report and Lighting Design

We provide your business with a comprehensive assessment including a demonstration of the costs and energy your business could save by undertaking a lighting retrofit. At this stage of the program we will also demonstrate how your business can leverage any relevant incentive programs.

#### 3. Supply

As part of the detailed building assessment report, Aglo Systems will specify and ultimately supply the perfect lighting product for your requirements. We supply a wide range of energy efficient lighting solutions which use the latest technologies and highest efficiencies. We can supply government approved products for installation and ensure rebate certificates are issued.

#### 4. Installation

Our qualified technical team will work with electrical contractors to undertake the installation of your new lighting with minimal disruption to your business, while adhering to strict occupational health and safety procedures.

#### 5. Measurement and Verification

Your building will be reassessed and measured using the Table 2, Option A parameters of the International Performance Measurement and Verification Protocol (IPMVP®) to calculate the anticipated savings against actual savings. The calculations will be based on spot or shortterm measurements i.e. current measurement across lighting circuits before and after lighting installation.

#### 6. Warranty

Documentation for a minimum of 3 year warranty on products and installation are supplied for your records.

### CASE STUDY Yusen Logistics Wetherill Park, NSW

#### Scope

The Yusen Logistics warehouse in Wetherill Park, Sydney required a reduction in energy usage to ensure operational viability with a financial, ecological and compliance perspective. The lighting within the building was outdated, assessed as non-compliant to minimum Australian AS1680 standards and the luminance had decreased over time.

#### Lighting Design Proposal

A thorough review of the lighting requirement led to a design using both classic round LED highbays and linear LED highbays. Using the longer fittings with an elongated beam spread in the storage aisles allowed a significant reduction in the number of luminares required to illuminate the same area and improve the vertical light levels. The new design and repositioning achieved a significantly improved brightness and even lighting coverage, with lux levels increased up to eight times in some areas. Aglo managed to achieve this result with 89 fewer fittings than before.



#### Additional Energy Efficiency from Automated Sensors

On top of the energy savings gained by the reduction of fittings and the highly efficient LED technology, further reductions have been achieved through the use of lighting controllers and sensors which monitor area occupancy and natural light from the skylights to adjust the required light levels accordingly.

To maximise the savings, one sensor per light fitting was installed so that every single light (spaced approx 9-12m apart) is individually controlled to suit the unique conditions of that particular area. To reduce installation time and costs, the sensors were connected to each fitting prior to site delivery.

Ease of installation was a key factor when I chose a supplier for our LED light installation. Aglo didn't disappoint on this. Performance of the lights greatly outshone every expectation that I had, even at a 20% dimmed level activated by the sensors we requested. I would certainly have Aglo as a front-runner for any future LED projects on our sites. 99

Thomas Finnigan, Procurement & Facilities Officer, Yusen Logistics

SUMMARY OF RESULTS*	
Reduction in Maximum Demand	114.87 kW p.a
Reduction in Energy Usage	358,403 kWh p.a.
Reduction in Greenhouse Gas Emissions	382.8 Tonnes CO <sub>2</sub> e p.a.
Total Supply and Install Cost	\$173,580 ex GST
Savings from Reduced Maintenance	\$12,150 p.a.
Energy Savings	>\$70,000 p.a.
NSW Government Rebate	\$32,786
Total Savings Year 1 only	\$116,616
Payback Period	<1.6 years
Return on Investment	60%
Energy Reduction with sensors	>74%



Notes

\*Using IPMVP®, Table 2, Option A calculations,  $\pm 20\%$  accuracy. Unless mentioned, these results are calculated WITHOUT the additional savings gained from the sensor controllers. Calculated on \$0.20 kWh.

Due to the ever changing light control environment, the savings gained by the use of sensors is a calculation from the on spot post installation lighting circuit load test, held at 10:00 am on 10th April 2015.



Aglo Europa Linear LED Flatbay installed in storage aisle





Aglo Europa Linear LED Flatbay / Aglo Galaxy 150W LED Highbay



Warehouse floorspace during installation (85% complete)



**Highbays during Installation** 



Lighting circuit load testing

## Aglo Systems provides commercial, retail, industrial and facility LED lighting solutions Australia wide.

Aglo Systems are specialists in lighting design and supply of LED highbays, spotlights, downlights and floodlights for retailers, warehouses, apartment complexes, educational facilities and healthcare facilities. We are an Australian owned company providing an extensive end-to-end Project Lighting Solution starting with design and consultation through to manufacture and supply.

Our Lighting Efficiency Upgrades department performs lighting audits and retrofit upgrades (leveraging government rebates) to reduce power consumption, lower maintenance costs and improve the overall lighting quality.

The Custom Design and Manufacture department works in partnership with architects, shopfitters, consultants & lighting designers to engineer and create unique luminaires and bespoke architectural features.

The Sports and Area Lighting department design and supply for all aspects of premium LED sports facility lighting and provide lighting solutions for areas such as loading docks, car parks, public parks and pathways.

With many years of experience, our dedicated team strives to provide a streamlined service with the finest attention to detail while maintaining competitive prices. By combining the latest technologies and highest quality components on the international market with inhouse assembly, Aglo Systems guarantees high end products and an extensive range.





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