

# HOW TO REDUCE YOUR ENERGY COSTS BY UPGRADING LIGHTING AND SAVE \$100,000s PER ANNUM.

A large manufacturing site spending over \$1m per year on electricity is likely to use between 5% and 30% of its electricity on lighting. If executed correctly a lighting upgrade can reduce these costs by 50%, while improving productivity.

But over half of lighting upgrades fail to produce expected results. Out Performers implements a rigorous process to ensure you succeed and maximise *your return on investment*.





# HOW MUCH DO YOU KNOW ABOUT YOUR LIGHTS?

## Here's a quick test to see if you know the basics about your existing lighting?

- What is your current lighting power density (LPD) in each area?
- How closely does your current LPD match best practice?
- What is your current Light Efficacy (how well a light source produces visible light) in each area?
- How much does it cost to maintain your lights each year?
- What payback would you expect from implementing a major lighting upgrade?
- Do your lights meet the recommendation of AS/NZS 1680 in all areas?
- To what extent can you benefit from lighting controls?
- What is the ten year lifecycle cost of your lighting?
- How can you get a bankable 5 year guarantee on your lighting upgrade?

## Why do lighting projects fail?

Of the hundreds of large scale lighting upgrades Out Performers has reviewed, over half did not use the best solution available and many have major lighting deficiencies that will cost thousands of dollars to rectify. Some of the reasons for these failures include:

- The solution supplier led – not customer driven.
- No expert independent design or business case was completed.
- LEDs, induction and other new technologies were purchased from small companies with poor quality products and ineffective guarantees.
- Some new lights were trialled for 12 months only to find that they were not suitable – what now?
- Lights did not meet Australian Standards or other approval requirements causing productivity and OH&S issues.

We make sure you get the best possible solution to maximise both energy reductions and lighting performance.



1

### Lighting Training

Developed in conjunction with Zumtobel the world's largest lighting centric company we provide a free four hour training course to **up skill engineering managers and purchasing staff** to help you identify the pitfalls and opportunities for lighting replacement.

2

### Comprehensive Lighting Opportunity Assessment

Detailed assessment of your current lighting. The outcome is a **detailed business case** answering the question: "Should we invest in a lighting upgrade, how much capital do we need, what return will we achieve, and how do we minimise risk?".

3

### Design, Performance Specification and Tender Evaluation

To allow **efficient project implementation** we conduct detailed designs for various lighting options, develop a detailed lighting performance specification, seek and evaluate suitable supplier options, and can project manage implementation to deliver the required outcome.

4

### Verification

To **make sure you got what you paid for** we confirm the energy savings achieved, that the correct lighting components have been fitted as specified, and that the installation and LUX levels meet Australian Standards.

5

### Energy Saving Certificates

Finally to **offset projects costs** we generate white paper certificates and obtain government grants and other incentives as available. As Out Performers is the largest creator of Energy Savings Certificates (ESC) for lighting in the commercial and industrial sectors, our costs are generally completely offset by any ESC income you receive at the end of the project making our services effectively free.

## USE OUR KNOWLEDGE & EXPERIENCE

Out Performers has developed a process to make sure you implement the best possible lighting solution.



## BENEFITS TO YOUR BUSINESS

- **Faster decision making based on detailed and accurate analysis**
- **Reduced energy bills**
- **Removal of operational risks**
- **Reduced maintenance costs**
- **Bigger energy reductions**
- **More Energy Saving Certificates created to offset costs**
- **The lowest life cycle lighting costs**
- **Reduced inventory and light replacement costs**
- **Maximised staff performance in lit areas**
- **Confidence in implemented measures through guaranteed performance.**

In short, Out Performers ensures you get the right lighting solution with the best possible return on investment. Don't be one of the 73% who did not maximise their returns on lighting upgrades. Contact us to find out how we can help.

Call 02 8094 1742 or email [info@outperformers.com.au](mailto:info@outperformers.com.au)

# OUT PERFORMERS WORKS WITH AUSTRALIA'S BIG ENERGY USERS

Out Performers is a specialist organisation in energy measurement and verification. We work with large industrial and commercial energy users spending more than \$1m on electricity annually to reduce their energy costs.

Our engineers implement a comprehensive process to develop rigorous investment grade business cases for energy efficiency opportunities, and then follow them through the implementation phase to ensure energy savings are realised with the best possible payback. Working with over 80 of Australia's top 200 energy users we have reviewed more than 600 energy efficiency projects and we've learnt what works and what doesn't.

## CASE STUDY 1 LARGE FOOD PRODUCER

### SITUATION:

- Existing Hi Bay luminaires were old and experiencing high lumen depreciation
- Maintenance costs were escalating
- 24 x 6 operation

### SOLUTION:

- Change 115 x 250w metal halides to 115 x 70w LED
- Change 350 x 400w metal halides to 100w LED

### BENEFIT:

- Annual electricity savings 1400MWh
- Saving \$168,000 per annum or 78%
- Energy Savings Certificates \$366,872
- Net Capex = \$98,128
- Payback = 0.6 years

### SUMMARY:

- Massive energy saving but high risk solution using LED lighting
- LED risk must be mitigated by bankable guarantee and direct evidence of luminaire longevity at other sites

## CASE STUDY 2 DISTRIBUTION WAREHOUSE

### SITUATION:

- Exist Hi Bay lights did not allow use of controls to reduce energy use
- 24 x 6 operation of facility but only small areas occupied at a time

### SOLUTION:

- Change 250 x 400w high bays one for one for 6 x T5 54w Fluorescent light boxes
- In built movement control and daylight sensors fitted

### BENEFIT:

- Annual electricity savings 376 MWh
- Saving \$45,000 per annum or 64%
- Energy Savings Certificates \$82,720
- Net Capex = \$67,000
- Payback = 1.5 years

### SUMMARY:

- Low risk solution using proven technology
- Lighting controls used to maximise savings by turning off lights when not required
- 5 year guarantee

## CASE STUDY 3 LARGE MANUFACTURER

### SITUATION:

- Light levels low due to excessive lumen depreciation and deterioration of luminaire reflective and refractive surfaces
- 24 x 7 operation

### SOLUTION:

- Convert 400w metal halides Hi bays to 250w metal halide pulse start lamps with dimmable electronic control gear
- Implement DALI lighting control system and integrate with manufacturing PLC

### BENEFIT:

- Annual electricity savings 1000MWh
- Saving \$120,000 per annum or 60%
- Energy Savings Certificates \$220,000
- Net Capex = \$330,000
- Payback = 2.75 years

### SUMMARY:

- Low risk solution
- Fully integrated
- Allows benefits from lighting controls

Note: Electricity charges based on 12c/kwh; ESC based on net income after costs of \$22/ESC

**OUTPERFORMERS**  
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