



Bayswater goes green with IoT lighting upgrade

As one of the largest engineering companies in the world, Siemens partnered with Integrated Outcomes to bring their office lighting into the 21st century. Initially the lighting scope was aimed to reduce their energy and maintenance costs but evolved into deploying a network of IoT sensors incorporated into the LED lighting installation.

This is how we did it.

The Challenge

Siemens sought a lighting partner they could rely on to lead the lighting design, supply and install at their headquarters in Bayswater, Victoria. The goal was to reduce the operating costs and assist Siemens with achieving their sustainability targets.

To minimise cost, Siemens wanted to retain the existing ceiling tiles and luminaire locations so we were tasked with engineering a custom solution to achieve AS1680 whilst working within the constraints of the existing luminaire. Other areas required an improvement in the lighting levels to ensure OH&S compliance and colour matching the fittings to maintain aesthetics.

The challenges involved in building a custom luminaire for Siemens included:

- ensuring that it achieved energy and maintenance reductions
- ensuring the new custom luminaire would fit into the existing luminaire space
- integrating a sensor with IoT capabilities
- Scheduling the installation daily and install with minimal disruption

With all these factors at play, open communication channels were key to the success of the project.

The Solution

After discussing the options and building the business case that met Siemens' requirements, we then conducted trials to ensure that lighting design met AS1680 and that the IoT sensors were located in the ideal locations to maximise the benefits.

SIEMENS

Siemens HQ, Bayswater

PROJECT & SAVINGS SUMMARY



Site address

885 Mountain Highway,
Bayswater, VIC, 3153



\$35,982

Reduction on previous
electricity consumption



5.1 Years

Payback from cash
flow savings



\$561,303

Long run savings over 10 years



126,266

Operational KWH's
reduced annually



159

Tonnes of carbon emissions
reduced annually



This meant that any concerns were able to be discussed and addressed from the beginning. Once the trials were completed, we explored the site specific needs for scheduling the supply and installation aimed at achieving a steady work flow and minimising any disruption to the daily operation of the office.

Our custom luminaire with Integrated IoT sensor provided the perfect platform to tailor the controls for the specific areas in which they were located. Other benefits included live representation, logging and reporting of the energy saved and used from functions like daylight harvesting, occupancy detection, dimming and time scheduling. Beyond lighting controls, the IoT sensor will be used to better control and balance the air-conditioning, track important assets, provide heat mapping of the movement throughout building and link into secure third party systems.

The project's energy objectives were achieved, saving on energy and maintenance throughout 4 floors of offices. The lighting and controls were upgraded to enhance productivity and provide Siemens with the knowledge and power of not only how to use the building to its full potential but with the ability to track and tailor the IoT system a truly unique experience.

To be successful, Integrated required a robust project plan which included auditing, product specification, product design and supply, project management, installation, measurement and verification to prove energy savings, recycling, and application for government rebate.

Throughout the installation and as sites were completed, Integrated gathered the information that delivered all available government rebates, reducing the overall cost implication to Siemens.

Client Outcomes

So what did our client think?

"At Siemens, we were looking for a lighting partner that had the experience and expertise to engineer a lighting solution fabricated to retrofit within our existing infrastructure. Integrated have delivered on their promises by providing us with the latest in LED lighting that incorporates Siemens Enlighted IoT sensor technology."

Barry Clement, Head of Siemens Real Estate, Australia & New Zealand

For further information or to discuss, call Integrated Outcomes on 03 8394 3119 or email us at info@integratedoutcomes.com.au