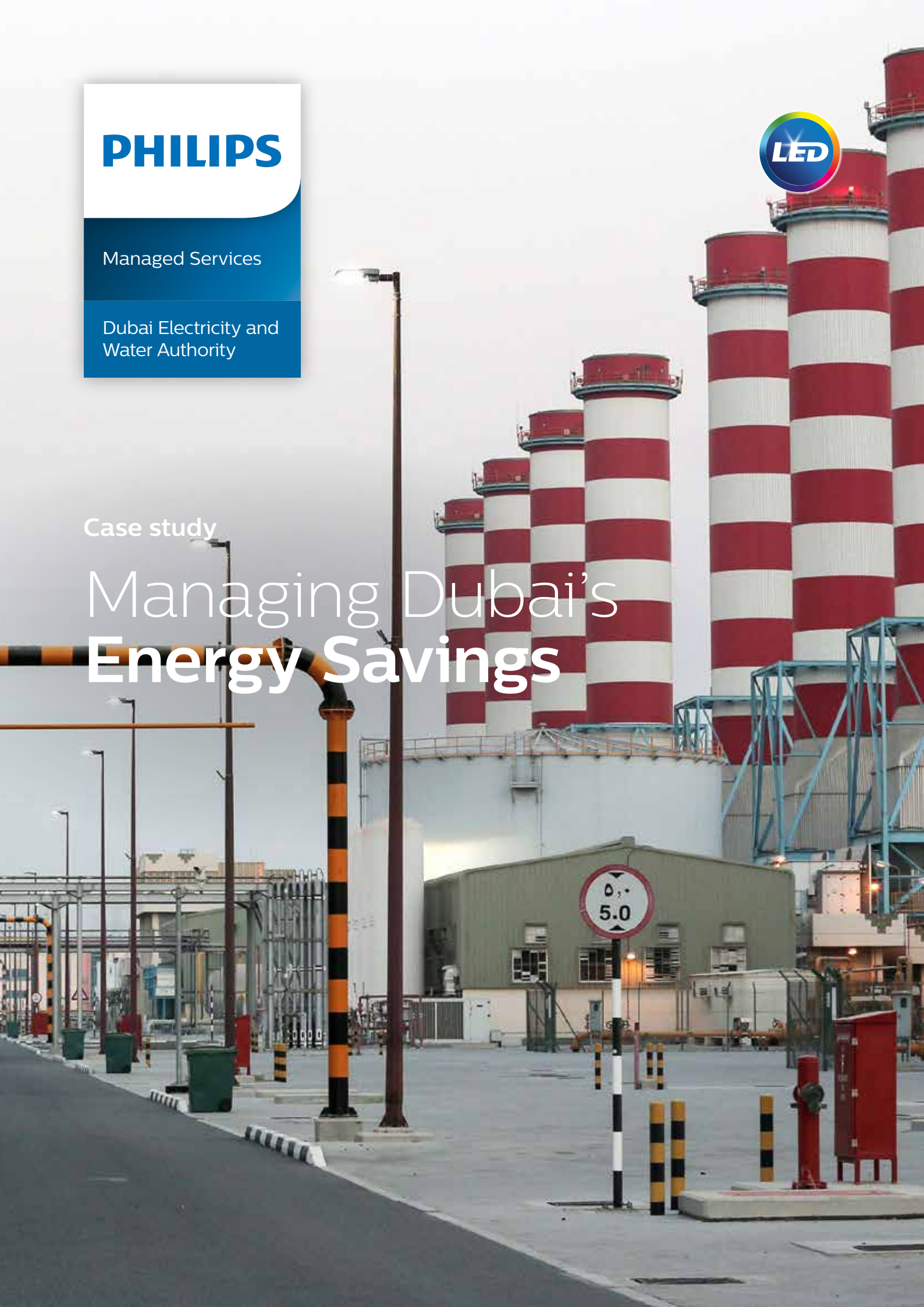
PHILIPS

Managed Services

Dubai Electricity and Water Authority



Case study

Managing Dubai's **Energy Savings**

“Philips isn’t just providing products. As an ESCO, **it is providing expertise and guarantees that those products will maintain the right standard of comfort** for the duration of the DEWA project.”

Asif Khan,
Operations Manager, Etihad ESCO

The LED retrofit project of the Dubai Electricity and Water Authority (DEWA) power stations was one of the first projects that was part of the ‘Green Economy for Sustainable Development’ initiative launched in 2012 by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, in conjunction with the Dubai Supreme Council of Energy (DSCE).

Formed in 2009, the Dubai Supreme Council of Energy (DSCE) was established to drive the Dubai Integrated Energy Strategy 2030 with the aim of reducing energy demand by 30% by that date. As part of this strategy, the DSCE looked at renovating and refurbishing existing buildings to improve energy efficiency.

Why it was done

To manage the refurbishment aspect of the strategy, Etihad ESCO was established. One of the first projects was the retrofit of the Dubai Electricity and Water Authority’s (DEWA’s) own power stations, aiming to greatly reduce energy consumption, and to make Dubai’s built environment a leading example of energy efficiency for the region and the world. Etihad ESCO was tasked with identifying the best partner to refurbish the lighting in several key areas of the power stations that make up the DEWA power plant.
There were a number of criteria that were considered in selecting the best partner for this lighting project. DEWA needed a solution that would not only provide sustainable lighting and energy savings, but also offer a retrofit that would not disturb plant operations. With the highest quality products, a flawless project plan, a clear strategy for ongoing measurement and energy savings verification, and a stellar reputation, Philips, the first lighting company in Dubai to be accredited as a lighting ESCO, was the clear lighting partner of choice for this project.

What it means

The focus for Philips was twofold: The right lighting solutions to provide comfortable lux levels while also focusing on reducing energy consumption, and developing a sustainable lighting solution for the plans for the long-term duration of the project. Additionally, Philips had to be able to guarantee these energy savings and lighting levels.

Philips guaranteed lux levels in all areas, and committed to conducting maintenance and upkeep on all new LED lighting systems over the next five years. As such, annual checks and measurements of all fixtures and lux levels are undertaken. Should any fitting not match guaranteed lighting levels, Philips will take corrective actions, and any failed luminaire will be replaced. These measurements are overseen by dedicated project management from Philips, and continuously monitored by a Certified Measurement and Verification Professional to ensure the guaranteed energy savings and lux levels throughout the course of the project.

The last word

Philips committed to delivering the results, and in turn DEWA experienced 68% savings in terms of lighting consumption. For Etihad ESCO and DEWA, this project has delivered exceptional energy savings without compromising on product or lighting quality.

For Stephane Le Gentil, CEO of Etihad ESCO, this Dubai power plants refurbishment project with Philips won’t be the last. It’s an incredibly important project that he firmly believes will progress Dubai’s energy saving plan – a plan that is being realized thanks to Philips’ world-class lighting products, planning, and expertise.

Lighting solutions used in this project

GreenVision BRP371/372/373
BRP371/372/373 is a simple, economical and reliable LED road-lighting solution that delivers substantial energy savings compared with conventional fixtures. Its neutral white light ensures visual comfort for all road users. Lifetime reliability is assured, with excellent thermal management helping to prevent early LED failure. Installation is easy, and maintenance of the driver box can be carried out without the use of tools on the pole. BRP371/372/373 also offers wireless point-to-point luminaire control.

GentleSpace Gen2
With the introduction of the GentleSpace LED luminaire in 2011, Philips achieved a breakthrough in high-bay lighting, offering a huge reduction in power consumption, a long service life and an innovative design. Now, with GentleSpace gen2, Philips is setting a new standard in the market, with an improved total cost of ownership, even in extreme conditions. In addition, a wide variety of options – e.g. optics, coatings, mounting possibilities and cover materials – are available to ensure an ideal solution for your application.

CoreLine High-bay
Designed as a replacement for HPI 250/400 W luminaires, CoreLine High-bay offers customers all the benefits of LED lighting – fresh light quality, longer service lifetime, reduced energy consumption and maintenance – from a trusted manufacturer. At the same time, it delivers clear benefits for the installer too. The luminaire can be installed on the existing grid. Electrical connection is straightforward: there is no need to open the luminaire for installation or servicing. And being smaller and lighter than conventional luminaires, it is very easy to handle.

CoreLine Waterproof
the new CoreLine Waterproof range of LED products can be used to replace traditional waterproof luminaires with fluorescent lamps. The process of selecting, installing and maintaining is so easy – it’s a simple switch.

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