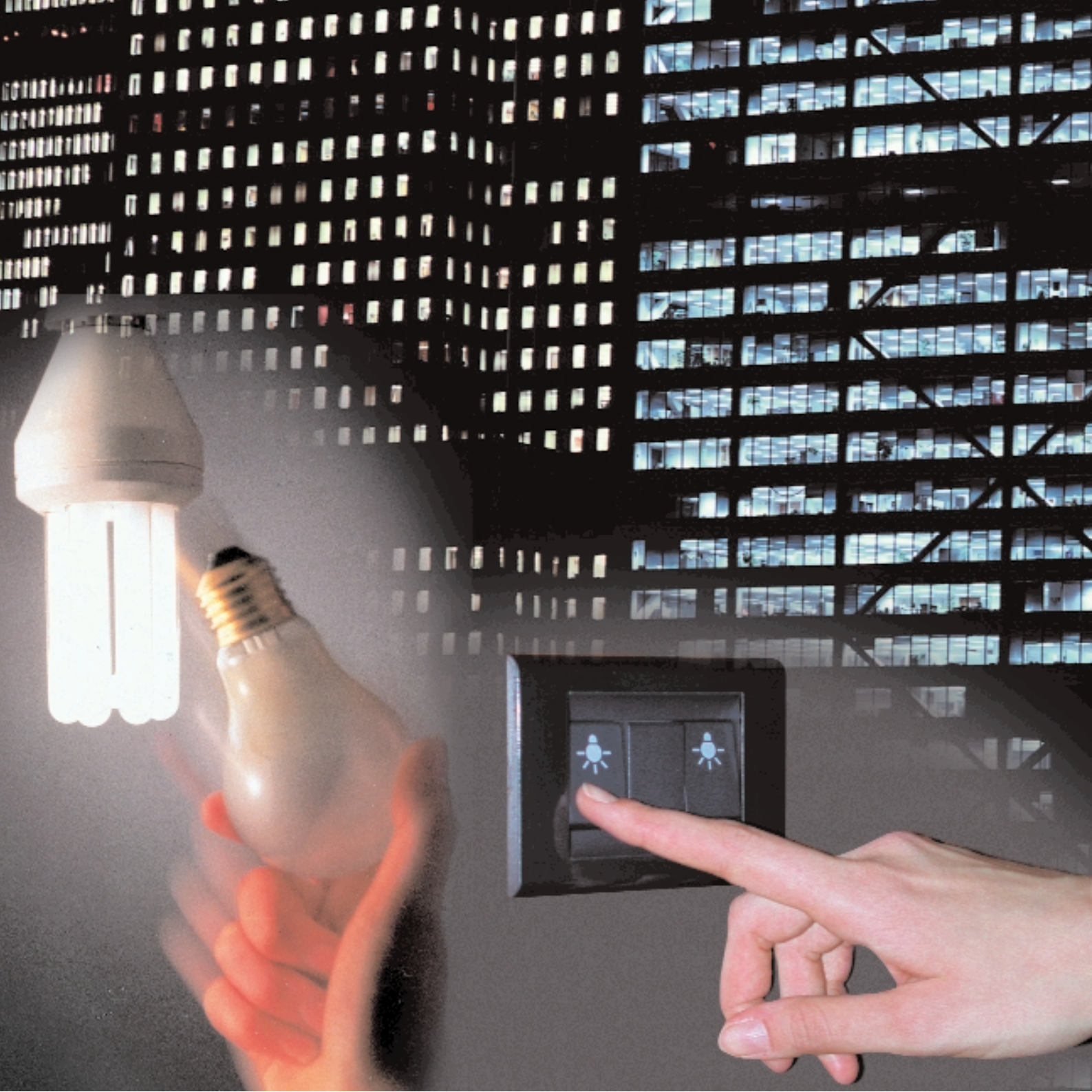


**GREENLIGHT**



THE EUROPEAN GREENLIGHT PROGRAMME  
An initiative promoted by the European Commission



Climate change is one of the main challenges our society will face in the coming years. The fulfilment of the Kyoto commitment for the reduction of Green House Gas emissions cannot be obtained without the efforts of all Europeans, in particular, public and private organisations in all fields of our economy.

Lighting has a substantial impact on the environment, accounting for up to 40% of electricity used in non-residential buildings. Major energy savings can be achieved. Examples from the field have shown that between 30% and 50% of electricity used for lighting could be saved investing in energy-efficient lighting systems. In most cases, such investments are not only profitable but they also maintain or improve lighting quality.

GreenLight is a European voluntary programme where private and public organisations commit to upgrading their existing lighting and to designing new installations, adopting energy-efficient lighting measures when:

- the cost of these measures is repaid by the associated savings and
- lighting quality is maintained or improved.

## The following organisations have joined the GreenLight programme:

Aeropuertos Españoles y Navegación Aérea  
Aeroporto G. Marconi di Bologna Spd  
Apoteket AB, Lokalenheten  
Bank Brussels Lambert  
Beerse Metaalwerken N.V.  
Bispen AS  
Christiaan Huygens College  
Comune di Berchidda  
Comune di Luvinata  
Comune di Marciana Marina  
Commune di Paterno  
Comune di Rolo  
Consignia plc  
Coop Adriatica s.c.a.r.l.  
Coop Centro Italia s.c.a.r.l.  
Coop Consumatori Nordest  
Coop Estense s.c.a.r.l.  
Coop Liguria s.c.a.r.l.  
Coop Lombardia s.c.a.r.l.  
Coop Toscana Lazio s.c.a.r.l.  
Det Norske Radiumhospital  
Dolce & Gabbana S.p.a.  
Endesa S.A.  
Escuela Técnica Superior de Ingeniería Industrial  
Fastighets AB Brostaden  
Gas Natural SDG S.A.  
Gemeinde Möglingen  
Grupo Union Fenosa  
Helsingborg City  
Hospital Unif. V. de las Nieves de Granada  
Ipercoop Tirreno s.c.a.r.l.  
Johnson & Johnson  
Koninklijk Atheneum Brasschaat  
Landuyt NV  
Lorentz Casimir Lyceum  
McDonald's Europe Restaurant  
Melia Castilla Hotels  
Monte dei Paschi di Siena  
NCC Property Development Sweden  
Nielsen-Gruppen AS  
Nova Coop s.c.a.r.l.  
Oskomera Holding BV  
Samhall Support AB  
SAS Norway  
S.I.C. Società Ipermercati Cooperativi S.p.A.  
Sincrotrone Trieste S.C.p.A.  
Sogelym Steiner  
Sonae Imobiliária, Centro Colombo  
Stadt Frankfurt am Main, Helmholtzschule  
Statoil  
Terres et Eaux  
TESCO  
Themis Construction S.A.  
Transgas SGPS  
Unicoop Firenze s.c.a.r.l.  
UniCredito Italiano S.p.A.  
Vennootshap Mechelse Veilingen c.v.b.a.  
Vodafone Greece  
WWF/Adena

... and signatures continue to arrive...



The healthcare company, Johnson & Johnson, was the first organisation to join the European GreenLight programme in 2000. In their Janssen Pharmaceutica facility in Belgium they have performed a relighting study for 75% of their 410 000 m<sup>2</sup> workspace. The actual relighted surface amounts 62 000 m<sup>2</sup>. All new facilities are equipped with daylight- and occupancy-sensors, 26 mm diameter fluorescent tubes with high efficiency ballasts and reflectors.

In addition to less cooling needs, lower maintenance costs and better working conditions for employees, they reported the following savings:

- Lighting electricity savings: 1 240 000 kWh/year
- Reduction of electricity use in the areas covered: 40%
- Energy cost savings: 62 000 €/year
- Payback time: 1.5 to 6 years (depending on the project).

*“We see the European GreenLight Programme as increasing the awareness within our companies in Europe and providing technical information and tools to accelerate our lighting upgrades”*

Harry Kauffman  
Corporate Energy Director  
Worldwide Engineering Services  
Johnson & Johnson







In Norway, Statoil joined GreenLight in January 2001. As part of their commitment, they installed occupancy controls in their research centre. These controls turn off the lights once they have failed to detect occupancy for a set time. When occupancy is detected, they switch the lighting on again. Previously, the lights remained on the whole day in all offices and laboratories with a common switching system. This was a waste of energy given that occupancy patterns were intermittent and unpredictable.

After measurements, they reported the following results:

- Lighting electricity savings: 219 000 kWh/year
- Reduction of electricity use in the areas covered: 74%
- Energy cost savings: 13 375 €/year
- Payback time: 2.5 years
- Internal Rate of Return: 40%.

In their Madrid headquarters, GreenLight Partner Gas Natural replaced the incandescent fixtures with modern luminaires for compact fluorescent lamps in the hall of each floor. As a general rule, comparable total light output from a compact fluorescent scheme may be obtained for only around 20-30% of the wattage required using standard incandescent lamps.

In the offices, they changed their halophosphate fluorescent lamps, high-loss magnetic ballasts and poor-efficiency luminaires, for triphosphor lamps, electronic ballasts, and parabolic troffers. They also replaced their general manual switch by localised switches offering better control to the users.

The company reported much better visual conditions, in particular higher illuminance levels, and the following savings:

- Lighting electricity savings: 533 028 kWh/year
- Reduction of electricity use in the areas covered: 60%
- Energy cost savings: 27 230 €/year
- Payback time: 3.5 years (floor halls) to 8 years (offices).

Gas Natural



In Portugal, GreenLight Partner Sonae Imobiliária upgraded the Centro Colombo covered car park, one of the largest in Europe, by substituting the magnetic ballasts with electronic ones. These operate fluorescent lamps at higher frequencies and offer significant advantages compared to magnetic ballasts, inter alia lower power losses.

After measurements, they claimed the following results:

- Lighting electricity savings: 400 838 kWh/year
- Reduction of electricity use in the areas covered: 11.5%
- Energy cost savings: 23 814 €/year
- Internal Rate of Return of the investment: 20%.

*“The GreenLight Programme gives us the possibility to show our partners and clients our objective to reduce energy consumption”*

Alberto Faias  
Energy Manager  
Sonae Imobiliária





van den Berg  
DEMAG

In Belgium, GreenLight Partner Beerse Metaalwerken nv replaced the standard high pressure mercury lamps of their workshop with 26 mm diameter fluorescent lamps. They also installed a control system to dim the lamps' output in response to daylight availability. In their offices, they replaced the 38 mm diameter fluorescent lamps with 26 mm diameter lamps. All new lamps are geared with electronic ballasts.

Besides improved visual conditions, they reported the following savings:

- Lighting electricity savings: 24 919 kWh/year
- Reduction of electricity use in the areas covered: 38%
- Total running cost savings: 7 133 €/year  
(includes company-estimated gains in productivity)
- Internal Rate of Return of the investment: 20%.

*“The GreenLight Programme acknowledges companies doing profitable and environment friendly business!”*

Dirk Verguts  
Director  
Beerse Metaalwerken nv

In Italy, the city of Sassari installed a centralised dimming system to reduce its street lighting levels and thus its energy consumption during periods of the night where traffic is lower. The city signed a “paid from savings” contract with the power control manufacturer and the installer. These financed up-front capital improvements in exchange for a portion of the savings generated.

Besides providing tele-control capabilities, and thus easier maintenance, their system is claimed to have provided the following savings:

- Lighting electricity savings: 1 855 385 kWh/year
- Reduction of electricity use in the areas covered: 30%
- Energy cost savings: 172 551 €/year
- Payback time: 3 years
- Internal Rate of Return: 33%.







Gain recognition as an environmental leader fighting global warming

Recognition by the European Commission:

- Plaques on your buildings
- Press releases
- Internet
- Exclusive use of the GreenLight logo
- Inclusion in the partnership catalogue
- Participation in the GreenLight awards

In addition, there is a major promotion campaign run by a consortium of national energy agencies and similar groups in 14 countries. It includes, among others, communication events in major European cities and articles in national newspapers.



For information or assistance on the GreenLight programme, don't hesitate to contact your GreenLight National Contact Point

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EUROPEAN COMMISSION  
DIRECTORATE-GENERAL ENERGY AND TRANSPORT



The Directorate-General for Energy and Transport is responsible for developing and implementing European policies in the energy and transport field. Its mission is to ensure that energy and transport policies are designed for the benefit of all sectors of the society, businesses, cities, rural areas and above all of citizens. The energy and transport sectors are pivotal to the European way of life and to the functioning of our economy; as such their operation has to be responsible in economic, environmental, safety and social terms. The Directorate-General for Energy and Transport carries out these tasks using legislative proposals and programme management, including the financing of projects.

The mission of the JRC is to provide customer-driven scientific and technical support for the conception, development, implementation and monitoring of EU policies. As a service of the European Commission, the JRC functions as a reference centre of science and technology for the Union. Close to the policy-making process, it serves the common interest of the Member States, while being independent of special interests, whether private or national.

Disclaimer: the examples in this brochure are self-reported by the GreenLight Partners. Their energy savings are assessed by comparison with either the pre-existing lighting (in the case of a renovation) or a conventional new installation (in the case of a new building). Energy savings potential is specific to each lighting installation, depending on the installed technologies, the operating hours, the occupancy pattern and other factors. All GreenLight upgrades shall be made in conformity with Community, national and local regulations. Neither the European Commission nor any person acting on behalf of the Commission is responsible for the use, which might be made of the contents of this brochure.

The GreenLight Programme is an initiative of the European Commission Directorate General Energy & Transport with support from the European Commission's Joint Research Centre.

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