

**A few GreenLight
success stories
by the GreenLight
Partners of the Year
for 2003**

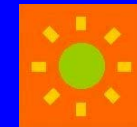
City of Hamburg (Germany)



In 1992 the Free and Hanseatic City of Hamburg started the comprehensive campaign “Leuchtentausch – 2:1 fürs Klima” (luminaire exchange – 2:1 for the climate) for luminaire refurbishment in public buildings as schools, universities, sanitary arrangements, tunnelling, theatres and museums etc..

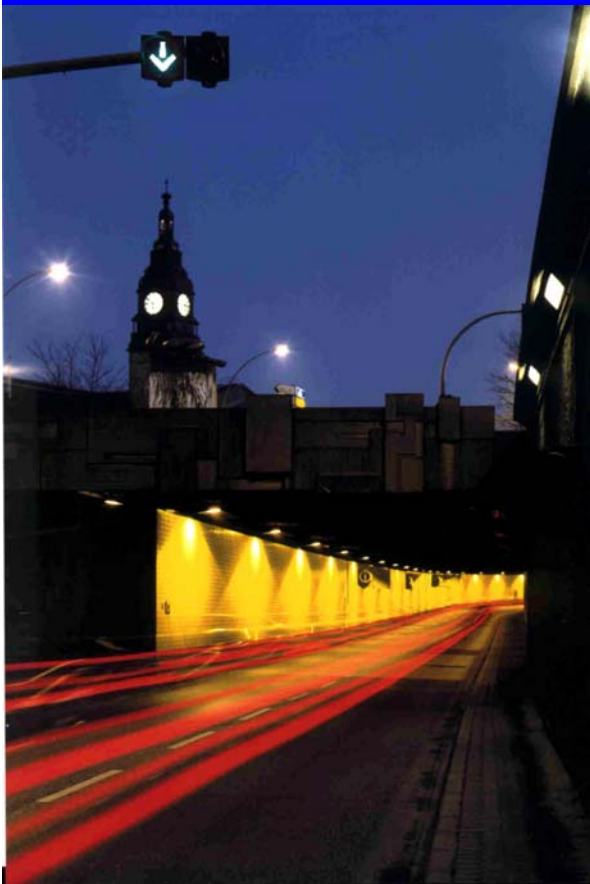
The results:

- Refurbishment in 450 projects
- Investment volume: 22,7 mill. €
- Electricity savings: 22,5 mill. kWh/a



An initiative of the
EUROPEAN
COMMISSION

City of Hamburg (Germany)



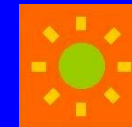
Entrance of the Wallringtunnel

Example of measure (year 2000):

- Substitute fluorescent lamps with sodium lamps in tunnels

Results:

- Savings: 1 000 000 kWh/year
- Energy reduction : 72%
- Savings: 82 100 €/year



An initiative of the
EUROPEAN
COMMISSION

CASINO (supermarket chain, France)

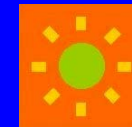


- 15 sites renovated , 130 000 m²
- mercury vapour lamp 400W replaced by T5
- reduction of installed load of 45%
- Electricity Savings : **9500 MWh** per year
- Financial Savings :
415 000 Euros per year



An initiative of the
EUROPEAN
COMMISSION

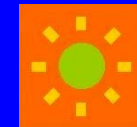
Carrefour Italia (supermarket chain, Italy)



An initiative of the
EUROPEAN
COMMISSION

Carrefour Italia (supermarket chain, Italy)

- 12 sites renovated , 93 000 m²
- installation of electronic ballasts, dimming based on daylighting, in some supermarket installed T5, lux reduced from 1700 to 900
- new company policy to install T5
- Electricity Savings : **1998 MWh** per year
- Financial Savings : **209 225 Euros** per year



An initiative of the
EUROPEAN
COMMISSION

Vital Eiendomsforvaltning AS (Norway)



Baseline installation	2 x 36W T8	
	1 x 36W T8	30,8 w/ m ²
Post installation	1 x 49 W T5	
	1 x 28 W T5	10,2 w/ m ²

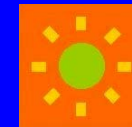
Total area: 13.000 m²
reduced installed kW by **60 %**
reduced running hours by **20 %**
Reduced energy consumption by **67 %**

Total yearly energy consumption (lighting):

Baseline **1.200.000 kWh**

Post installation **400.000 kWh**

Pay Back : **4 years**



An initiative of the
EUROPEAN
COMMISSION

Stadhuis Sittard (The Netherlands)



Installation of:
T5 lamps, dimmable electronic ballasts,
day light control and occupancy
sensors

Reduced energy consumption by 62 %

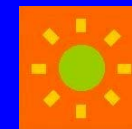
Total yearly energy consumption
(lighting):

Baseline 185200 kWh

Post installation 38210 kWh

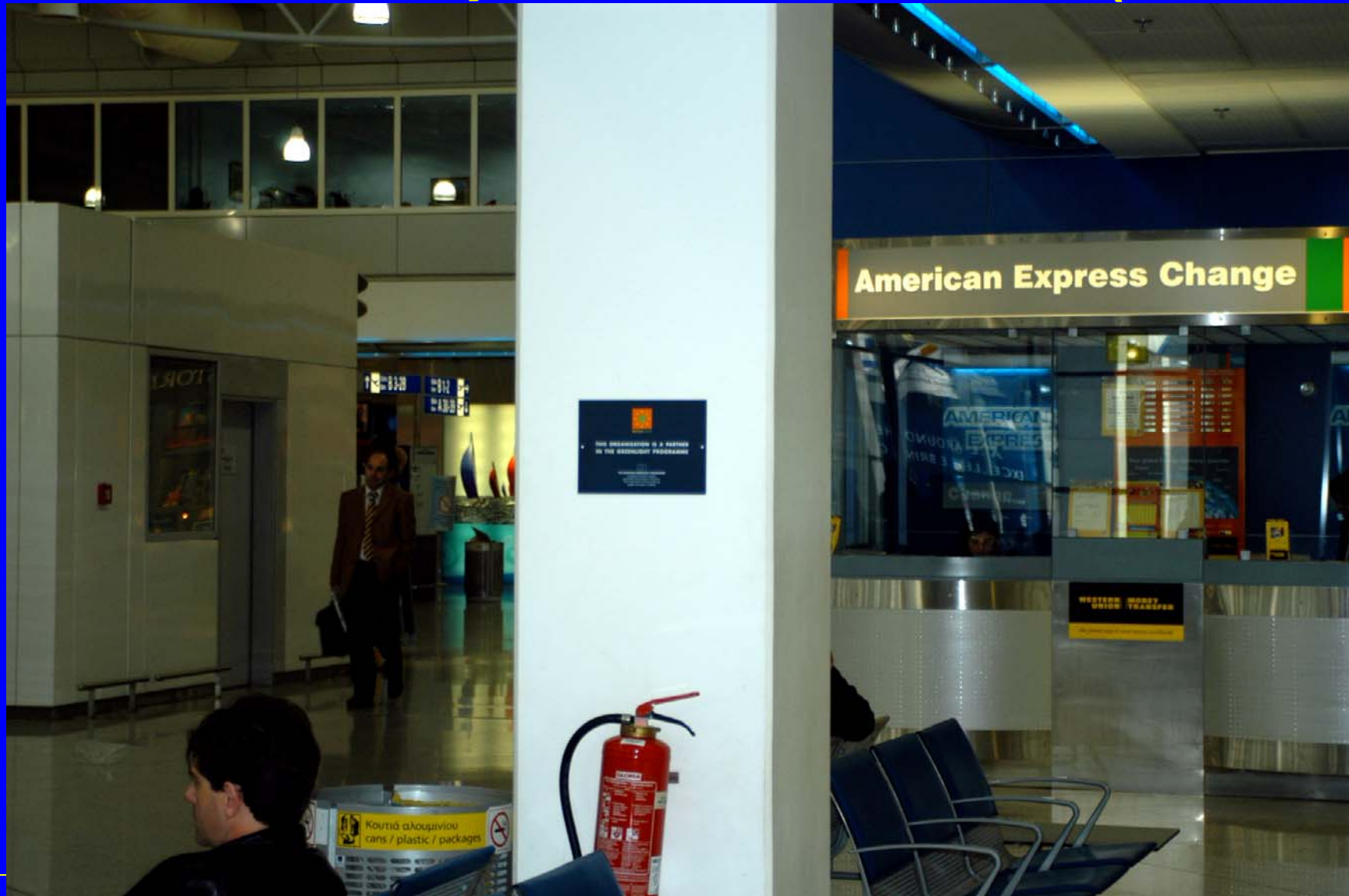
Energy savings 149980 kWh

Saving: 7350 Euro/year



An initiative of the
EUROPEAN
COMMISSION

Athens Int. Airport “El. Venizelos” (Greece)



An initiative of the
EUROPEAN
COMMISSION

Athens Int. Airport “El. Venizelos” (Greece)



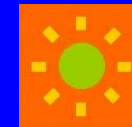
Actions

Control System (BAS)
Electronic ballasts
3 buildings, 195 863 m²

Results:

Improved light quality
Energy Savings: 3298 MWh/yr
Operating cost reduction:
131 956 € /year

Payback time: < 1 year



An initiative of the
EUROPEAN
COMMISSION

Futebol Clube do Porto (Portugal)



Installation of electronic ballasts

Total yearly energy consumption (lighting):

Baseline :

1219898 kWh/year

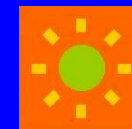
Post installation:

741445 kWh/year

Lighting electricity savings:

478454 kWh/year

Pay Back : 4 years



An initiative of the
**EUROPEAN
COMMISSION**



Dolce&Gabbana - Show Room building



DOLCE & GABBANA

Show Room building

Lighting optimisation:

- Dimmable T5 fluorescent lamps, metal halide and some halogen spot
- Lighting supervisory control system
- Yearly energy consumption: 70.000 kWh (1/5th than standard)
- Low maintenance costs
- Lighting energy saving (-80%)
- Air conditioning energy savings (-20%)
- high affordability and availability
- Investment cost decrease



An initiative of the
EUROPEAN
COMMISSION

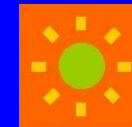
City of Zurich (Switzerland)



The City of Zurich is one of the building industry's biggest clients (€ 300 Mio/year) in Switzerland. As priority for the next 10 years the building department issued 7 milestones for environmental friendly and low energy building construction. The lighting in new buildings and in 50% of refurbishment projects should meet the MINERGIE specifications (www.minergie.ch) which are based on the recommendation SIA 380/4 "Electrical Energy in Buildings"

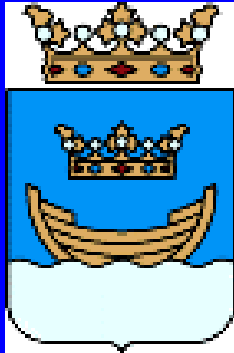
The Results:

- 15 new and refurbished projects with 71'000 m² in operation
- Power saving: 4,9 million kWh or CHF 980'000 in 15 years

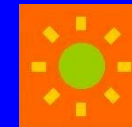


An initiative of the
EUROPEAN
COMMISSION

City of Helsinki Education Department (Finland)



- More than 300 school buildings are maintained by the City of Helsinki Education Department.
- Renovation projects of the schools focus on the safety, health and on sustainable development as well as improving the energy efficiency and the quality of the facilities. In 2003 a total of EUR 56,4 million was spent on school construction, renovation and maintenance projects.
- City of Helsinki Education Department has been an active participant in the GreenLight project in Finland from the beginning.



An initiative of the
EUROPEAN
COMMISSION

City of Helsinki Education Department (Finland)



Munkkivuori elementary school

Total area: 2508 m²

Details of the typical classrooms

- Old lighting with T8 circular fluorescent lamps and Cfl's or incandescent
- New lighting with pinbased fluorescent lamps and electronic ballasts
- Energy savings from 22 to 48 %
- Better lighting quality with indirect lighting
- No veiling reflections or glare
- Better vertical illumination
- Energy savings **18 000 kWh/year**

N
E
W



O
L
D



An initiative of the
EUROPEAN
COMMISSION

**Be Part of a
European Movement
join GreenLight
www.eu-greenlight.org**



**An initiative of the
EUROPEAN
COMMISSION**