



Centro Tecnológico
de la Energía y del
Medio Ambiente

**ENERGY EFFICIENCY IN STREET LIGHTING
AND PUBLIC BUILDINGS:
TWO REAL CASES OF STUDY IN THE REGION OF MURCIA**

**EUSEW 2013
EUROPEAN SUSTAINABLE ENERGY WEEK**

CETENMA – TECHNOLOGY CENTRE FOR ENERGY AND ENVIRONMENT – JUNE 2013

www.cetenma.es

- ❑ Technology centre focused on **energy & environment**
- ❑ Private non-profit business association surrounded by more than **3,200 companies** from the local environment and energy sectors with **€ 378 Mio sales**
- ❑ More than **60%** of associates are **SMEs**
- ❑ Highly **skilled team** of 20 PhD/MSc engineers and researchers specialised in **four main knowledge areas**

Water
technologies

Renewable
energy (solar)

Bio-energy

Energy
efficiency

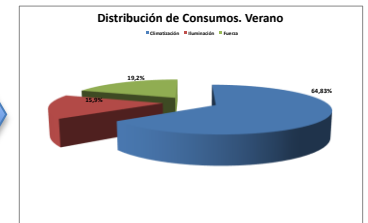
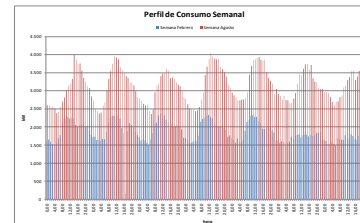


ENERGY EFFICIENCY IN HOSPITALS

- ❑ Energy audits in **two public hospitals**
- ❑ A **complete methodology** was applied
- ❑ Concrete **energy saving measures** were analysed and proposed
 - ✓ Water chiller devices
 - ✓ LED tech. lamps and ctrl. automation
 - ✓ Solar PV energy for self-consuming
 - ✓ CHP and/or CCHP systems
 - ✓ Changes in supply conditions



20% of saving in energy consumption
40% of saving in energy costs
Payback period < 3 years



ENERGY EFFICIENCY IN PUBLIC STREET LIGHTING

- ❑ Energy audit of the **street lighting system** of the municipality – overall consumption of 2,538MWh/yr
- ❑ A **complete methodology** was applied
- ❑ Concrete **energy saving measures** were analysed and proposed
 - ✓ High efficacy lamps & ballasts
 - ✓ Timely switch on/off & luminance
 - ✓ Light pollution & obtrusive light
 - ✓ Maintenance & supply conditions



20% of saving in energy consumption
15% of saving in energy costs
Payback period < 3-5 years

ENERGY EFFICIENCY – PROFITABLE BUSINESS

**MUCH TO DO – RIGHT FINANCING
INSTRUMENTS**

**NOT SUCCESS OF ONE DAY – MAINTENANCE
IS IMPORTANT**

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Thank you very much!

CETENMA – TECHNOLOGY CENTRE FOR ENERGY AND ENVIRONMENT

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