

Workshop Energy efficiency in retrofit situations

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- Cooling
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Energy management

- Ongoing attention for the efficiency of the energy consumption.
 - Compare with key figures
 - Analyze trends and incidents
 - Define measures to be taken and manage the realization
- Quick wins are related to inefficient building operation

Cooling

- Reduce demand:
 - Shading
 - Insulation
 - Building mass
 - Internal heat
 - Heat recovery
 - Set points of building management system
- Efficient techniques
 - Location condenser
 - Ground bound heat pump
 - Variable speed drives

Lighting

- Reduce demand
 - Create Compartments
 - Not more then necessary
 - User influence
 - Daylight availability
 - Daylight sensors
 - Building management system
 - Occupancy sensors
- Use efficient techniques
 - Electronic ballast,
 - Dimmable
 - LEDS

Ventilation/pumps

- Reduce demand
 - Set points building management systems
 - Not more than necessary
 - Heat recovery
 - Occupancy/CO2 sensors
- Efficient techniques
 - On/of operation
 - Direct current
 - Efficient motors
 - Variable speed drives

Appliances

- Purchasing policy
- User behavior
- Operation, use energy efficiency settings