Environment, energy and climate

Energy Efficiency of Industrial Buildings

One day to reduce the consumption of the buildings of an industrial site: envelope and roofs, lighting, ventilation, air conditioning of premises, warehouses and cold rooms, building management. You learn to spot losses, to rank works by gain and cost, and to write a renovation or extension specification that takes energy into account from the design stage.

Duration : 1 day

Objectives

1. Identify the consumption items of an industrial building and their weight in the bill
2. Spot losses in the envelope, lighting, ventilation and storage cooling
3. Assess improvement measures by gain, cost and operating constraints
4. Build energy criteria into a construction or renovation specification
5. Monitor the building’s consumption with suitable metering and indicators

Programme

Day 1 — morning

• The building’s share in a site’s energy bill: offices, workshops, warehouses, cold rooms

• Envelope: roofs, insulation, solar gains, air tightness, docks and doors

• Lighting: useful levels, LED, daylight, presence detection and dimming

• Ventilation, air conditioning and heating of premises; storage cooling and losses at openings

Day 1 — afternoon (workshop)

• Metering by zone and by use, building management system, time scheduling

• New building or extension: orientation, solar protection, solar-ready roof, specification criteria

• Workshop: survey of the savings potential of a building on your site and ranking of actions

• Landmarks from ISO 50002-2:2025 for energy audits of buildings; knowledge test

Teaching methods

• Walk-round of a building noting visible losses, when the training takes place on your site

• Savings calculations on lighting and ventilation from your data

• Case study of a cold store and a production workshop

• Action prioritisation grid handed to participants

• Final test on the building’s consumption items and the ranking of actions

Assessment and documents

Knowledge test at the end of the day, feedback survey at D+1. Numbered training certificate, verifiable online, for each participant; the company receives the training report and the prioritised list of savings potential surveyed in the workshop.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

For processes (steam, compressed air, industrial cooling, motors), see “Energy Audit: ISO 50002-1:2025 (formerly ISO 50002:2014)”. To generate part of your electricity on your roofs, see “Renewable Energy in Industry”.

Practical information

Duration	1 day
Audience	Maintenance and new-works managers, general services, energy, engineering, QHSE
Prerequisites	No prerequisites
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

Does the course deal with production machinery?
No, it covers the building and its equipment: envelope, lighting, ventilation, air conditioning, storage cooling. Processes and production utilities are covered in the two-day course on energy auditing.

Do we need to be an engineer?
No. The day is also aimed at general services and maintenance managers. The necessary thermal notions are explained simply, and the calculations stay within reach of a spreadsheet.

Can it be applied to a building still at the project stage?
Yes, and that is when choices cost least. Part of the afternoon is devoted to the specification of a new building or an extension: orientation, roof, insulation, natural light, metering.

How do we prove the savings achieved?
By comparing consumption after the works with a baseline adjusted for the variables that explain it, such as outdoor temperature or occupancy hours. The course shows how to set up the minimum metering to do so.