



Lebanon Energy Efficiency & Renewable Energy Finance Facility



SUPPORTED BY Banque du Liban

*Sustainable Energy Investment* ➔ *Improved Business Results*

# ***Energy Efficiency and Renewable Energy in Small Workshop, Crafts & Services***

Lebanon is rich in small companies, trades and service companies, which comprise a large variety of enterprises as a whole. The sector in itself can broadly be segmented three categories each with several sub-categories:

**Wholesale and retail:** non-food retail, small supermarkets, wholesale and commission trade

**Services:** Office spaces, small hotels and guest houses (covered in a separate flyer), hairdressers, professional services, etc.

**Smaller crafts and manufacturing companies:** Manufacturing of small machinery, iron works, final products, etc., car trade, sales and repair

As a whole the sector comprising these trades and companies has a combined energy efficiency potential of at least 30%. However, these companies also suffer most from the lack of professional advice regarding energy efficiency. Quite often simple standard measures can generate a very good improvement in energy costs and to the end LEEREFF has developed the List of Standard Technologies (LET). The list provides potential investors with the possibility of selecting equipment and be confident, that the technology purchased will produce the desired energy savings. Most technologies are applicable across all sectors.

## OVERVIEW OF EXAMPLES FOR ENERGY SAVING AND RENEWABLE ENERGY INVESTMENTS IN SMALL WORKSHOP, CRAFTS AND SERVICES

### WHOLESALE AND RETAIL

Retailers and wholesalers, regardless of the size, require dry, clean and, in the case of companies handling food products, refrigerated spaces. One factor that differentiates retailers from wholesalers is the need for lighting, which draws in the customers and literally puts the product into the right light. The typically high electricity consumption in the sector can be reduced with investments in the following equipment:

LED and other efficient lighting systems	Efficient ventilation
Split and central air conditioning units	Efficient ovens for on-site baking and cooking
Efficient boilers	Energy management systems
Efficient refrigeration and freezers	Solar PV and solar lighting (wholesalers tend to have more roof space for rooftop installations)

### SERVICES

**Office spaces** are for example companies within banking, finance, insurance as well as consultancies. They primarily consume energy for heating and cooling rooms, lighting, ventilation and office equipment (PCs, servers, photocopiers etc.). Lighting makes up the largest portion of their energy consumption. The lighting being used is primarily general lighting such as strip light. Most places will also have spot and point lights, most often compact fluorescent lamps or halogen lights. The LEEREFF LET offers:

- LED and other efficient lighting systems
- Split and central air conditioning units
- Efficient boilers
- Solar PV and solar hot water

**Other Small Businesses** cover a wide range of services such as hairdressers, solariums, laundries etc. In some cases, energy consumption is comparable to that of retailers, whereas others require more energy-intensive equipment like washing machines or sunbeds. The LEEREFF LET offers:

- LED and other efficient lighting systems
- Split and central air conditioning units
- Efficient boilers
- Solar PV and solar hot water
- Efficient commercial washing machines
- Efficient equipment for the leisure and beauty service providers

### MINI CASE – AUTO-TRANSMISSION REPAIR SHOP



The nature of the automotive transmission repair business requires working with tools in a complex, hands-on environment. The Automotive transmission repair shop needed a lighting solution

that would improve visibility and safety in their shop. By investing in the replacement of the outdated T12 fluorescent lighting against efficient LED, the repair shop had energy savings of over 50% and improved its working conditions at the same time.

### MINI CASE – SMALL SEWING COMPANY



The company with not more than 40 employees invested in various energy saving measures and is now saving 60.2 MWh/year:

- Installed a new highly efficient ventilation system
- Installed a modern heat recovery technology
- Replaced all lights with modern LED lamps
- Insulated the building and installed energy efficient windows
- Purchased 26 new and efficient sewing machines

### SMALLER CRAFTS AND MANUFACTURING COMPANIES

**Small manufacturers** of machinery, furniture, household appliances and medical equipment. Energy consumption is typically centered around lighting, cooling, ventilation, air compression and IT, but also some production equipment, including auxiliary devices such as compressors and motors. The LEEREFF LET offers:

- LED and other efficient lighting systems
- Split and central air conditioning units
- Efficient boilers
- Solar PV and solar hot water
- Efficient compressors
- Efficient motors and inverters

**Car trade, sales and repair** make up a relatively large sector in which energy is mainly consumed for heating and lighting up salesrooms and repair shops, which also use air compressors and process heating (e.g. spray booths). The LEEREFF LET offers:

- LED and other efficient lighting systems
- Split and central air conditioning units
- Efficient boilers
- Solar PV and solar hot water
- Efficient compressors
- Efficient motors and inverters
- Heat recovery systems





## WHAT IS LEEREFF?

LEEREFF stands for 'Lebanon Energy Efficiency & Renewable Energy Finance Facility'. LEEREFF is a dedicated credit line for companies who wish to invest in sustainable energy including:

- Renewable energy
- Energy Efficiency in industry and commerce
- Green Buildings (Commercial)

LEEREFF offers investment support through loans from The European Investment Bank (EIB) and Agence Française de Développement (AFD), with interest rate subsidies provided by the Banque du Liban (BDL), and free technical assistance provided by an international team of engineers, financed by the EU.

Please visit our website to find out how you can benefit from and apply for a LEEREFF loan: [www.leereff.com](http://www.leereff.com)



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