Promoting Water & Energy Use Efficiency in the Lebanese Industry

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I- ALI Overall Brief

**ALI**
Overall Representative of the Manufacturing Industry in Lebanon

**NGO**
Founded in 1943, groups Top Industrialists & Industrial Syndicates

**Mission**
Create & Maintain a favorable Environment for Industrial Investment, Growth & Development

**Sustainable Development**
Involved in Environment and Renewable Energy Related Issues since 1992
II- The Green Production Help Desk (GHD)

- Is a project partnership between ALI and ESCWA
- Help Desk established at ALI premises
- Provides information and technical advice to Lebanese Industries that want to develop their products/production to fit with the principles of sustainable development, and enable them to engage in the emerging green economy

II- The Green Production Help Desk (GHD)

“Strengthening Capacities in Lebanon on Greening the Industrial Sector”

- Information Sharing
- Training
- Networking
III- Environmental Influence from the Lebanese Industry

*Consumption of Resources* is essential to the production of goods: CONSUMPTION OF WATER, ENERGY & RAW MATERIAL give rise to ENVIRONMENTAL RESOURCES DEPLETION

IV- Facts of Water & Energy in the Lebanese Industry

3 Main Environmental Issues are perceived from Industrial activities:

1. Energy Consumption
2. Water Consumption
3. Wastewater Generation
IV- Facts of Water & Energy in the Lebanese Industry

**ENERGY:**
- High Electricity Cost
- Increasing Prices of Oil
  - Energy Cost is HIGHEST in the Region

**WATER:**
- Wastewater generated untreated is disposed into the environment
- Water is somehow used irresponsibly

Resulting in a heavy burden on the industrial sector, leading to an unfair competition.

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**What can be/is being done in many industries:**

**ENERGY CONSUMPTION:**
- Create power generation plant, employing new generators and more effective burning systems.
- Organize the hours of the heating, ventilation, and air conditioning (HVAC) system in order to save energy.
  - Enhanced the lighting system of the establishment; remap light bulbs and change for energy efficiency.
- Improve power generators by setting heat exchangers on the exhausts of the generators to reduce the consumption of energy and increase efficiency.
IV- Facts of Water & Energy in the Lebanese Industry

What can be / is being done in many industries:

WASTEWATER:

✓ Establish an onsite wastewater treatment plant and reuse the treated water in the process system again, either for cooling or in the production process when possible.

WATER CONSUMPTION:

✓ Put water meters to detect leakages as well as water saving devices.

✓ Change the design of water usage or landscape of the establishment to consume water more efficiently.

V- Recommendations

Create green industrial cities equipped with a developed infrastructure, including sewage systems, water treatment plants, renewable energy generation sites, etc.

Lebanese Government should:
- allow industries to generate their own energy for their use and sell the excess to the public grid
- support energy-intensive industries financially

Promotion among industries of wastewater treatment and its reuse within the production process

Lebanese Government should encourage and adopt renewable energy generation