Amman Chamber of Industry (ACI)

Outlook & Further Development of CSH Activities in Jordan

1st Concentrating Solar Heat (CSH) Workshop
Amman, 18th/19th September 2018

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### Main Topics

1. **Main Indicators of The Jordanian Industrial Sector**

2. **Amman Chamber of Industry Energy Initiatives**
   - Energy Saving
   - Renewable Energy
   - Awareness & Capacity Building

3. **Energy Challenges Facing The Jordanian Industrial Sector**

4. **Main Proposal**

5. **Suggested Next Steps**
Jordanian Industrial Sector
Main Indicators - Year 2017

- 24% Contribution to GDP
- 18,200 Manufacturing Companies
- 249,300 Workers
- 7,2 Billion US$ Industrial Exports
- 6.4 Billion US$ Registered Capital
- 2.4 Billion US$ Industrial Exports
Jordanian Industrial Sector Energy Consumption Ranking – Year 2015

Ranked Third in Total Energy Consumption

- Transportation: 17%
- Household: 48%
- Industrial: 22%
- Other sectors: 13%

Ranked Second in Electricity Consumption

- Sales: 43%
- Household: 25%
- Commercial: 15%
- Water pumping: 15%
- Street Lighting: 2%
ACI Energy Strategy ...

... focuses on Energy Efficiency & Renewable Energy as a priority issue

... provides technical & financial support to manufacturing companies in Jordan

... highlights addressing SMEs by several development initiatives and projects in order to support them facing their energy challenges
Amman Chamber of Industry
Energy Initiatives

Energy Saving

- Full Energy Audit (Mobile Energy Clinic)
  - 25 Audit Projects
  - 14 Factories Invested in Energy Saving Measures

Renewable Energy

- Factories Pilot Support Program to Procure Renewable Energy Systems
  - (8) Factories were supported and installed solar water heating systems (Flat Plate Collectors)
  - (1) Factory was supported and installed a PV System

Awareness & Capacity Building

- Directory of Energy & Water Saving (Distributed 1000 Copies)
  - (8) Workshops (500) Participants (Including 3 CSH Workshops)
  - (2) Training Courses (50) Participants
Categories of Energy Audited Industries

- Chemical Industry
- Plastic Industry
- Food Industry
- Engineering Industry
- Construction Industry
Examples of Supported Energy & Water Saving Equipment

- Power Factor Corrector
- LED Lamps
- High Pressure Pump
Examples of Supported RE Systems

Flat Plate Solar Collector

PV System
Awareness & Training

Energy Guide

Workshop Session
Main Energy Challenges

Energy Cost
- High Diesel & Fuel Oil Cost
- High Electricity Cost
- High Production Cost

Competition
- Imported Products from Countries with Lower Production & Energy Cost
- Critical Situation for Energy Intensive Industries
- Imported Products from Countries Enjoying Free Trade Agreements with Jordan
Main Challenges of CSH Investment for the Industry

- High Start up Investment Cost for SMEs
- Long Pay Back Period (5 – 7) Years
- Uncertainty of regional situation
Main Proposal
Development of CHS for the Industrial Sector

Pilot Projects / From Several Industrial Subsectors

Success Stories

Increase local Added Value
(Encourage Partnership with Local Industry & Engineering Firms)

Green Loans

Partial Grants / Subsidies, Cost Sharing
Suggested Next Steps (I)

1. Invite Manufacturing Companies to Apply
2. Study Applications, Complete Required Data
3. Coordinate with all National Stakeholders
4. Develop Fund Raising Proposal (Financing, Green Loan, Subsidy/Grant, Business Model)
Suggested Next Steps (II)

1. Submit Proposal to the Word Bank
2. Develop Selection Criteria
3. Select Manufacturing Companies
4. Start Project Implementation
Thank You All!

Your Contact at ACI

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