

JORDAN CLEAN TECHNOLOGY SECTOR

REPORT
2016



EDAMA
Energy, Water & Environment



USAID
FROM THE AMERICAN PEOPLE

Dear Reader,

There is no doubt that the outstanding momentum that Jordan is witnessing in the renewable energy and energy efficiency sectors is creating exceptional business opportunities for the private sector. Whether as Independent Power Producers (IPPs), Energy Service Providers (ESPs), or providers of supporting consulting services; companies find a vibrant business environment to start and grow their business. This is only possible through the genuine partnership that the Government of Jordan establishes with the private sector throughout the process from policy formulation towards project licensing and implementation. During the past seven years, Jordan has been developing the needed legal and regulatory framework to facilitate clean energy project implementation. Moreover, the effective consultation with the private sector and business associations resulted in successful design and deployment of several market-oriented sector enablers such as the clean energy financing schemes, workforce development and certification programs, awareness raising campaigns as well as continuous stakeholders' dialogue on various levels.

It is my pleasure to introduce to you the first Clean Technology Sector Report for Jordan. This report - prepared by EDAMA Association for Energy, Water and Environment – aims at highlighting the main clean energy sector development efforts that were put forward in recent years through a unique partnership between the public and the private sectors in Jordan. The report also describes and for the first time the types and status of more than 365 companies the majority of which are active in the renewable energy and energy efficiency market. Classification of the researched companies was made based on the ISIC 4.0 and using quantitative and qualitative data that was collected professionally during the year 2016.

The research findings indicate that 82% of the surveyed companies are fully owned by Jordanians and that they employ 12,913 employees; 72% of which are either engineers or technicians. Only 16% of the sector's workforce are females; 53% of which are reported as engineers. Out of JOD 755, 032, 292 revenue for renewable energy and energy efficiency companies in 2015; around 46% came from professional, scientific, and technical services while a modest 11% came from manufacturing activities. 37% of reporting companies export their offerings, with the highest exported service being architectural and engineering activities and technical consultancy related to renewable energy projects and green buildings.

I hope that you will enjoy reading this report that captures years of hard work by all the sector players. Through such document, we introduce Jordan as the hub for sustainable clean energy solutions.

Dr. Ibrahim Saif



Minister of Energy and Mineral Resources

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1. CLEAN TECHNOLOGY SECTOR STATISTICS REPORT

Jordan's Clean-tech sector is a nascent yet promising sector with a rapidly emerging potential of effectively contributing to Jordan's GDP. However, there is a marked gap in the availability of relevant, sector-specific, accurate, timely and reliable sectorial statistical data. Additionally, there is no proper classification of Clean Technology companies. To that end, and for the first year, EDAMA with the support of USAID Jordan Competitiveness Program (USAID-JCP), have prepared and produced this report. This report is the first of its kind in Jordan. It identifies and classifies Clean Technology companies in Jordan. It also provides an overview of Jordan's Clean-tech sector development efforts, highlighting new opportunities, and identifying hurdles affecting the sector. Finally, it contains the most pertinent sectorial statistical information and will therefore serve as a baseline for the sector.

The report answers six key questions:

What is the Jordanian Clean-tech sector?

What are its sub-sectors?

What economic activities fall under those sub-sectors?

What companies in Jordan report those economic activities?

How are those companies performing?

How is the sector performing?

The benefits of this report are many and cross-cutting. The report illustrates the Clean-tech sector's growth potential, key areas of competitive advantage, and economic opportunities for Jordan by increasing exports, creating employment opportunities, and attracting investments (both foreign and local). The report provides investors, governments, Clean Technology companies, and other relevant players along the value chain with a bird's view understanding of the state of Clean Technology in Jordan. The outcomes of it will enable all stakeholders of the Clean-tech sector to make more accurate predictions that are based on sound, timely and meaningful sector data.

Through this report:

- Businesses can use accurate and quantifiable information to make predictions and plan ahead through identifying sector-specific trends and opportunities to be created and/or expanded.
- The government can utilize the reliable market data on private sector growth and challenges present in the report to develop future sectoral strategies and implement the Government of Jordan's (GoJ) Jordan Vision 2025, monitor sector performance, make policy decisions, revise and amend laws and regulations, and provide necessary support to further market growth.
- Investors and potential investors can better understand the Clean Technology market, find their niche, and make investments accordingly.
- Donor agencies and associations involved in the sector can focus their efforts in growing the sector, and servicing the players within it.
- Business Associations and NGOs will be able to better perform on their core-mandate through strategies built on accurate and reliable data.
- Financiers can understand key players, market dynamics, service providers to better serve their customers.

EDAMA plans to periodically prepare and produce this report in future years. This initial report will serve as a foundation for future reports, which with time will shed light on growth trends and the sector's contribution to key economic indicators.

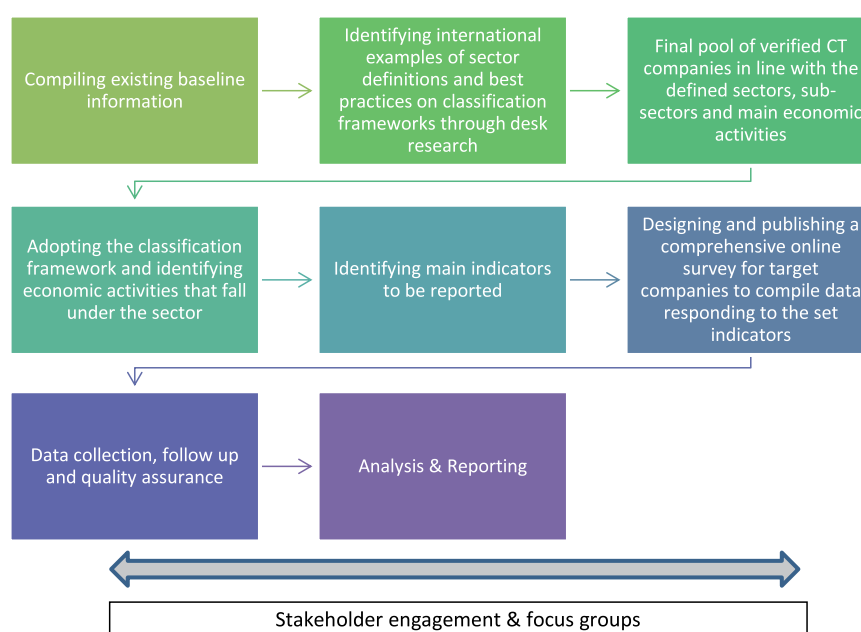
Despite the fact that there are several other sub-sectors that fall under the Jordanian Clean-tech sector (such as waste and water management), this initial report will primarily address two sub-sectors: energy efficiency (EE) and renewable energy (RE). This is because business maturity levels of the Clean-tech sub-sectors vary to a considerable extent; RE/EE subsectors have been the subject of wide interest in the past few years and are the most mature. Other sub-sectors will be included in future reports in response to market demand and depending on their maturity level at the time.

1.1. METHODOLOGY

The report preparation included several stages. Firstly, the consultant compiled all existing baseline information and progress reports/data, from both USAID JCP and other projects, resources, and stakeholders. Desk research was also conducted to identify international examples of sector definitions and best practices on classification frameworks to use for the sector. Secondly, the sector and subsector indicators were defined in consultation with key sector players and based on best international benchmarking guidelines. Thirdly, the final pool of companies was identified and verified based on the companies' listed primary economic activities that fall in line with the defined sectors, sub-sectors and International Standard Industrial Classification (ISIC) 4 classes and subclasses. Fourthly, a comprehensive survey with clear questions and indicators was built to ensure the most needed indicative information was collected, and a methodology was built in consultation with key sector players to ensure the quality of the data collected. Fifthly, the survey was shared online with the verified companies and data was collected accordingly. The survey collection process was conducted over eight weeks. To reach out to all companies and ensure a sizeable market sample was reached, a team of surveyors followed up intensively with all verified companies through phone calls and site visits. Two focus groups were held with the participation of EMRC, USAID ESCB, Jordan GBC, REES, JREEEF, MEMR, USAID JCP, and energy experts. For more information on involved entities and representatives, please refer to the "Acknowledgement" section.

The key steps of the process employed in developing this yearbook is captured in Figure 1 below.

Figure 1: Report Methodology



1.2. CLASSIFICATION FRAMEWORK

To standardize sector definition and activities, the latest ISIC standards and requirements were reviewed; all related economic activities were extracted and then mapped against the economic activities reported on in the existing baseline report (which included all related company information). The classification and mapping exercise provided a set of categories based on the collected data. The exercise also assisted in how the information was detailed in the survey and in this report.

The classification framework used is ISIC Rev. 4 whereby companies were classified under Clean-tech only if their principal activity fell within the classification domain. "An activity that contributes most to the value added of the unit, or the activity the value added of which exceeds that of any other activity undertaken by the unit is called its principal activity". The final assigned classification codes were 13 classes, and 19 sub-classes that span across 6 main sectors demonstrated in section "Clean-tech Economic Activities ISIC 4"

2. SURVEY OUTCOME

SURVEY POPULATION

Having compiled the database of Clean-tech operating companies in Jordan from USAID-JCP, EDAMA, and other stakeholders such as the Renewable Energy Establishment Society (REES) and USAID Energy Sector Capacity Building (ESCB). In addition to adding Clean-tech companies that are registered in KINZ Portal for Information Technology, a validation process was undertaken that involved identifying Clean-tech companies that fall under the agreed upon ISIC 4 classification (economic activities) classes and sub-classes for renewable energy (RE) and energy efficiency (EE) activities only.

The resulting initial identified number of Clean-tech companies that only operate in RE and EE stood at 354 companies. Applying an error margin of 5%, and a confidence level of 95%, the initial survey sample size was calculated at 185 companies.

Email invitations containing the online survey link were sent out to all 354 companies. Through the survey collection process, another verification process was conducted and 45 companies were excluded from the initial list because they were either closed, duplicated or stated that they do not operate in Clean-tech. The remaining population size for RE and EE companies then stood at 309 lowering the sample size to 172 companies.

By the survey collection deadline, 174 companies had responded. Through the quality assurance process, 2 companies were further excluded because they had duplicated responses. Out of the remaining final 172 companies, 107 were identified as EE companies and 65 as RE companies.

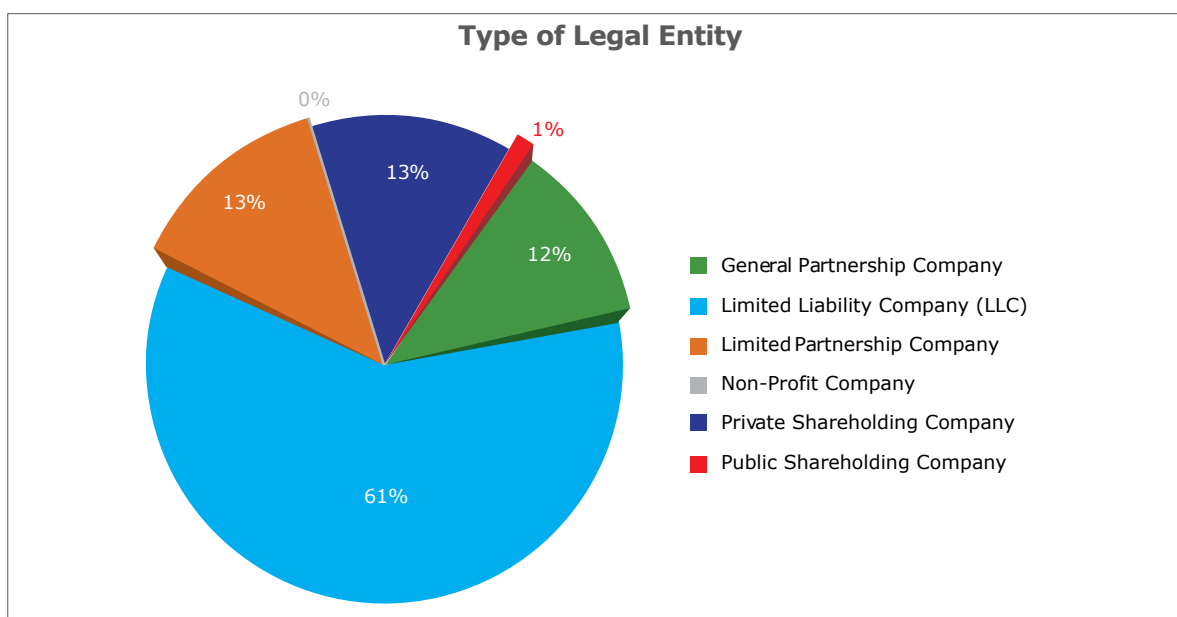
137 companies received the survey link yet did not respond to the survey despite reminders and a vigorous follow up process. To validate that those companies operate in Clean-tech or not, desk research was conducted, and 13 companies were excluded because they were either closed, duplicated, do not operate in Clean-tech, refused to respond, or couldn't be reached. The remaining non-participating Clean-tech companies after this verification process stood at 124 companies. A summary of these outcomes is captured in Table 1 below.

Table 1: Summary of Survey Population

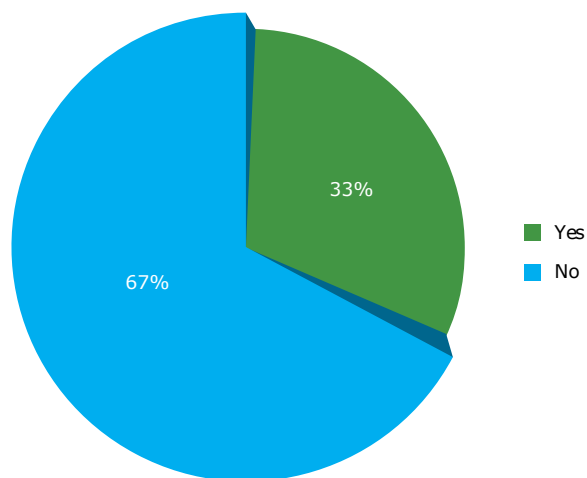
Initial Identified Clean-tech Companies (RE & EE)	354
Initial Survey Sample Size	185
Excluded Companies - 1st Stage Verification	45
Remaining Clean-tech Companies Population (RE & EE)	309
Survey Sample Size after 1st Stage Verification	172
Total Companies Completed the Survey	174
Excluded by Quality Assurance	2
Total Companies Completed the Survey after QA	172
Energy Efficiency Companies	107
Renewable Energy Companies	65
Total Companies that Did Not Participate	137
Excluded Companies - 2nd Stage Verification	13
Remaining Non- participating Clean-tech Companies after 2nd Stage Verification	124

SECTOR STATISTICS

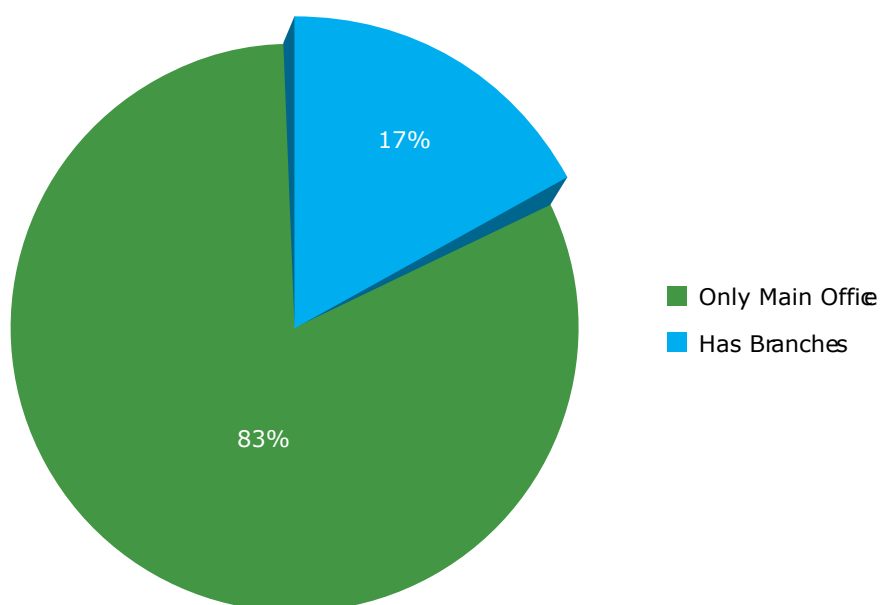
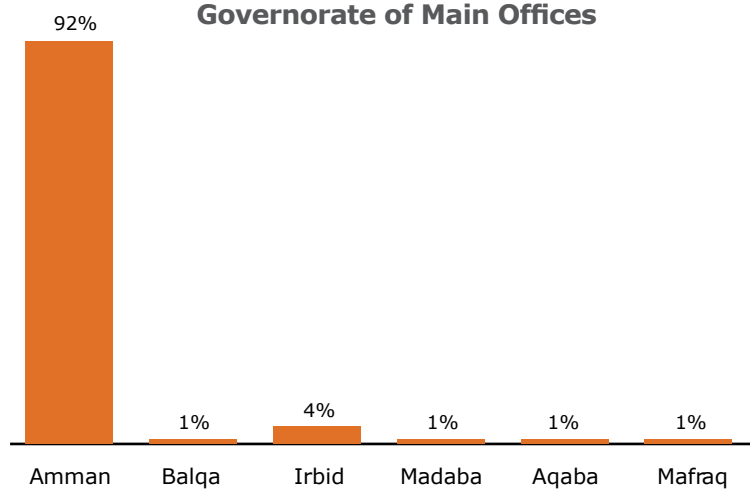
General Information - Participating Companies

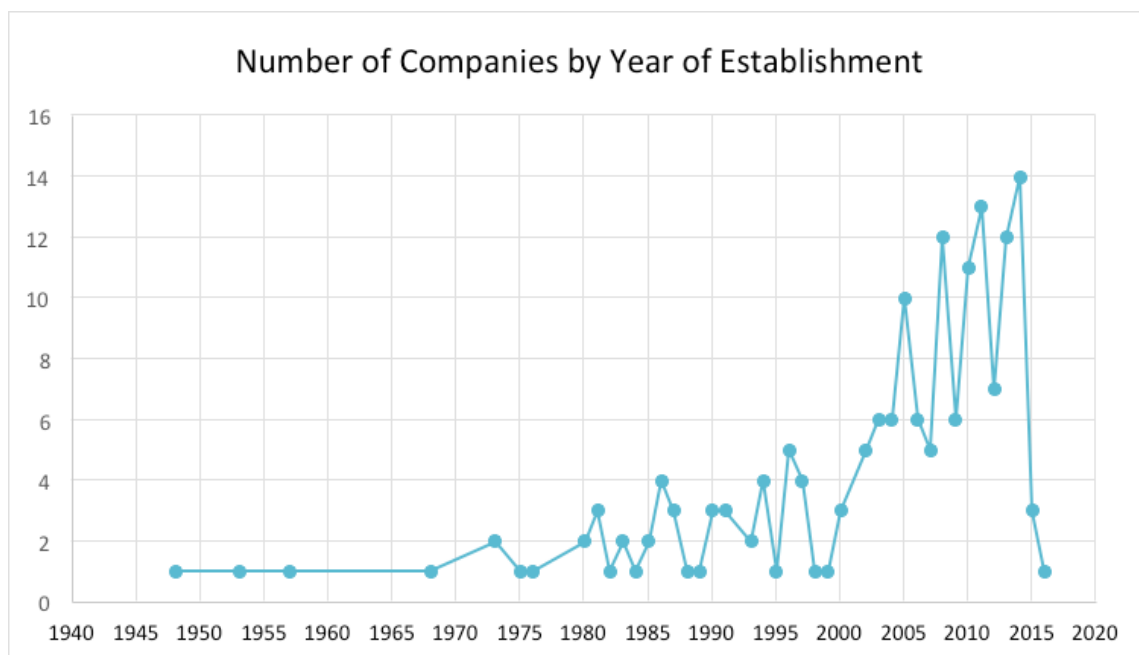


Female Participation in Ownership



Governorate of Main Offices



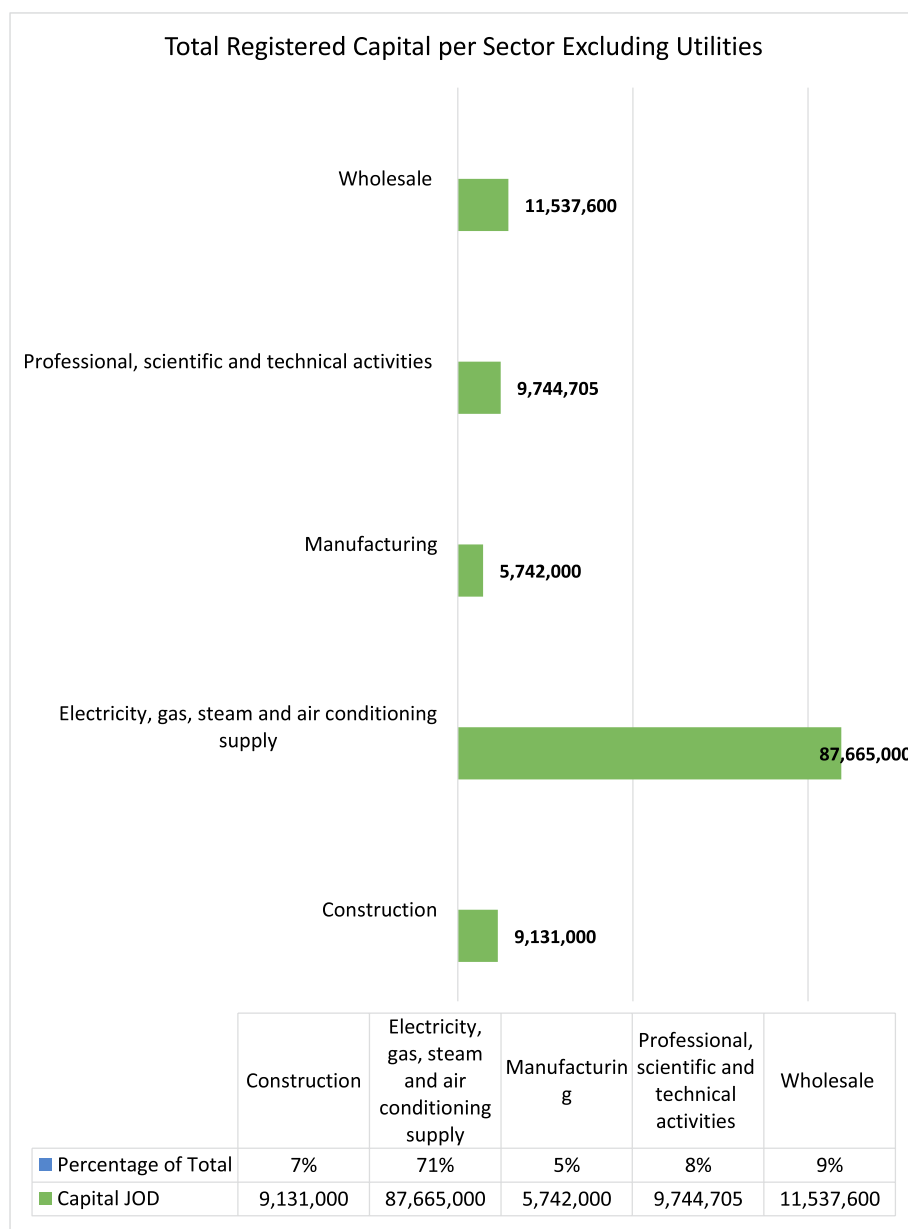


Registered Capital Including Utilities

Number of Responses	162
Total Registered Capital	123,850,305
Mean	764,508
Median	46,000
Mode	5,000

Registered Capital Excluding Utilities

Number of Responses	160
Total Registered Capital	64,850,305
Mean	405,314
Median	41,000
Mode	5,000

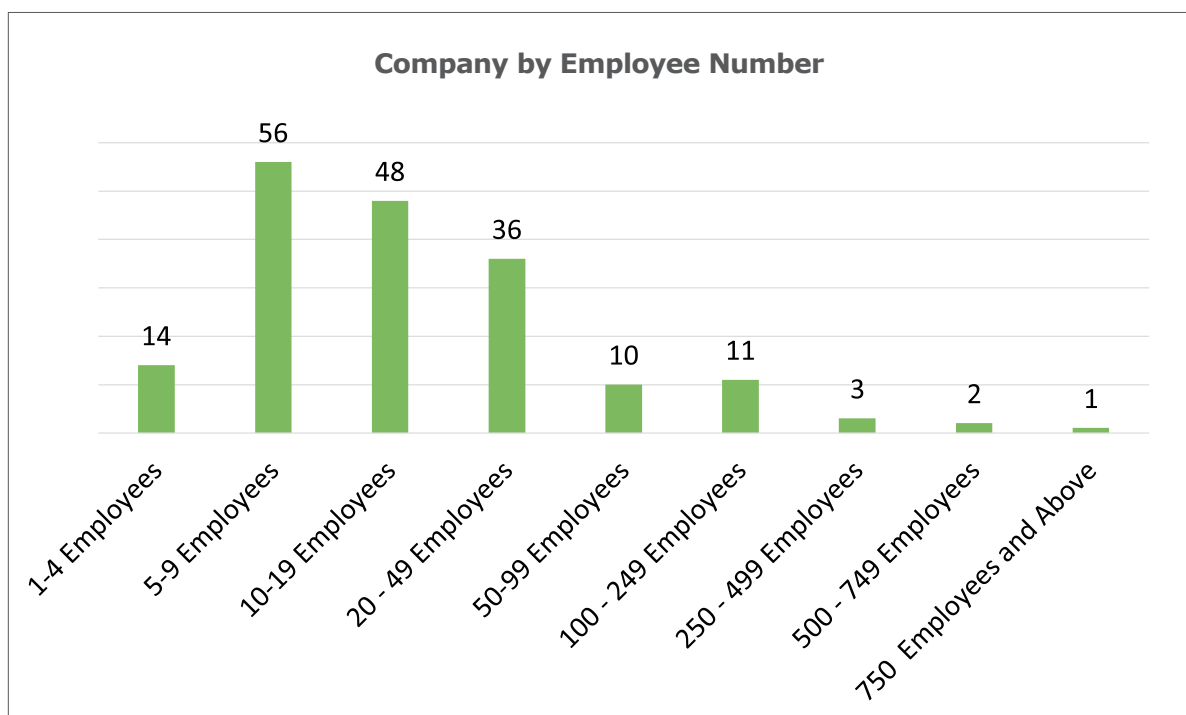
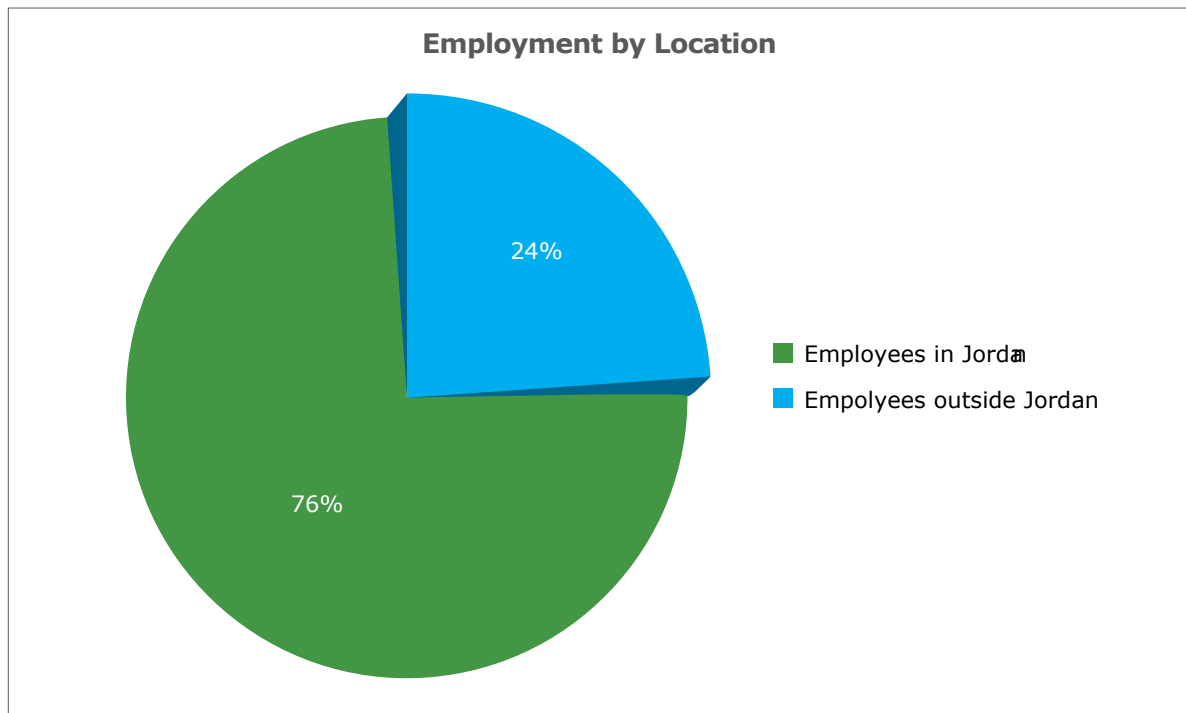


Employment

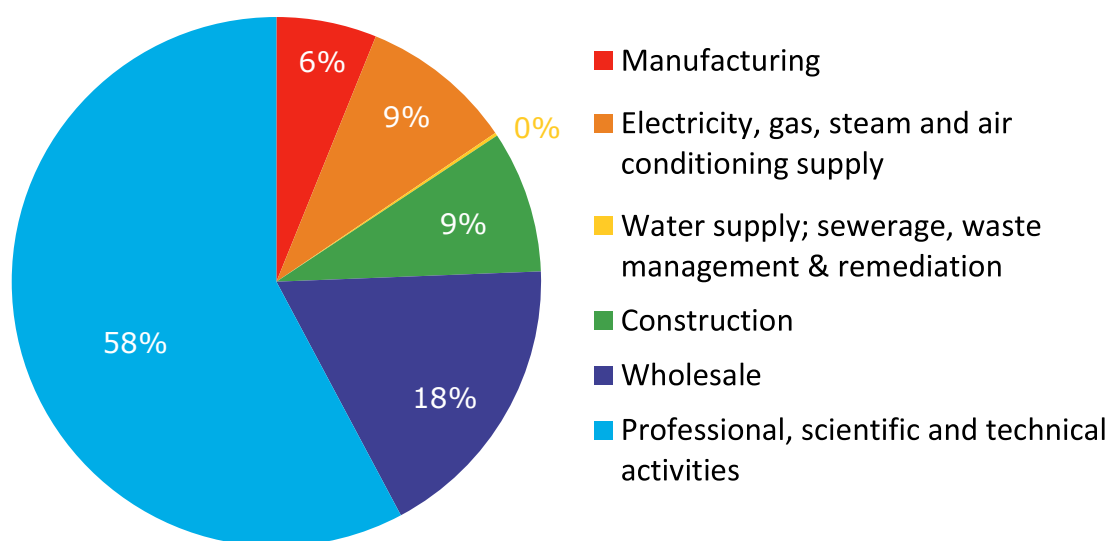
Employment Excluding Utilities

Employees EE companies/non-participating companies	4,483
Employees RE companies/non-participating companies	502
Employees EE companies/participating companies	3,018
Employees RE companies/participating companies	4,910
Total employees/non-participating companies	4,985
Total employees/participating companies	7,928
Total Clean-tech Sector Employees	12,913

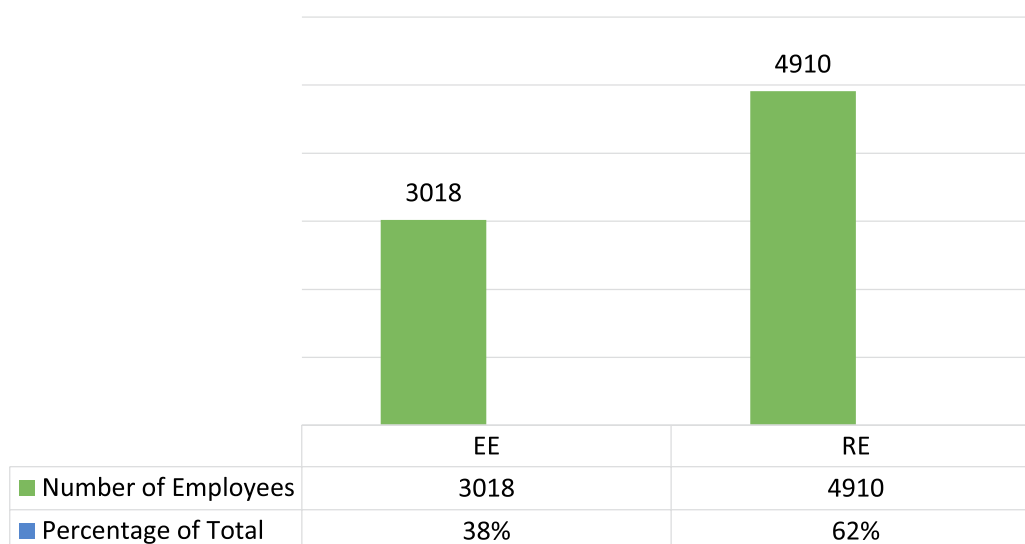
Participating Companies



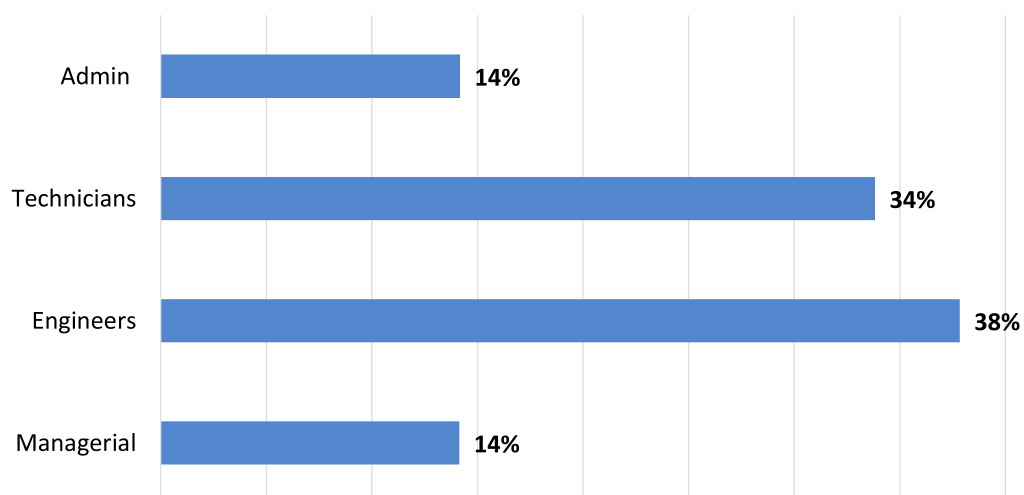
Employment by Sector

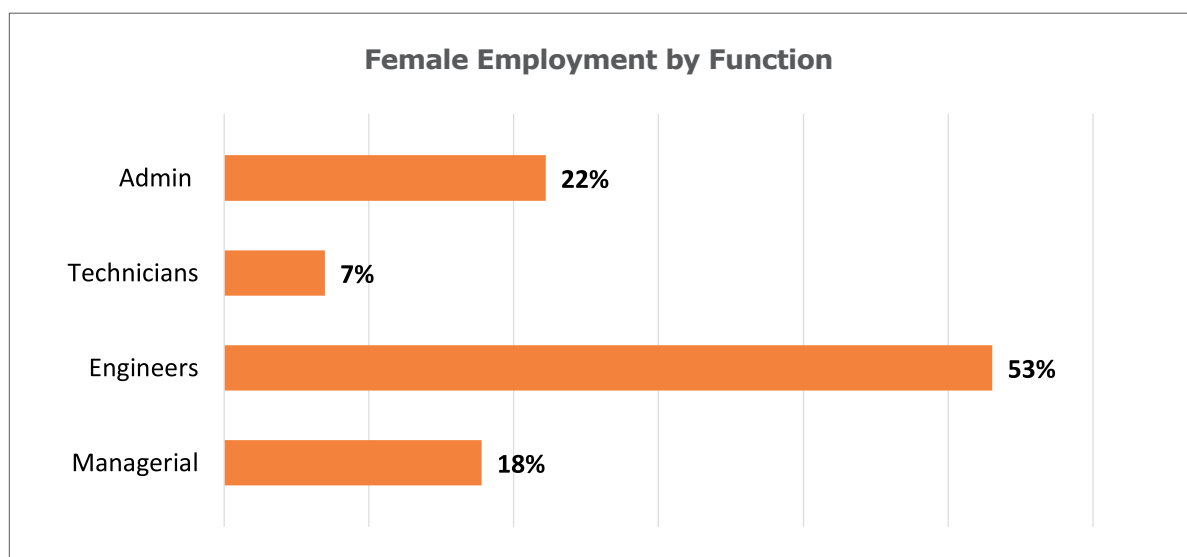
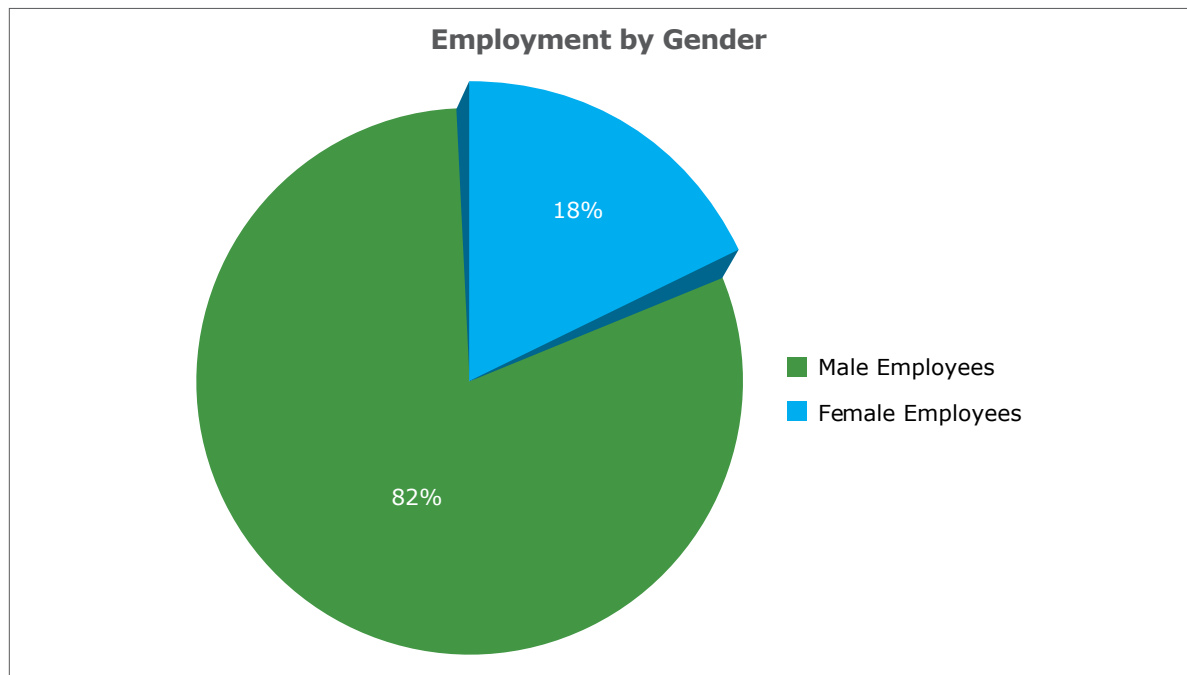


Employment by Segmentation



Employment by Function



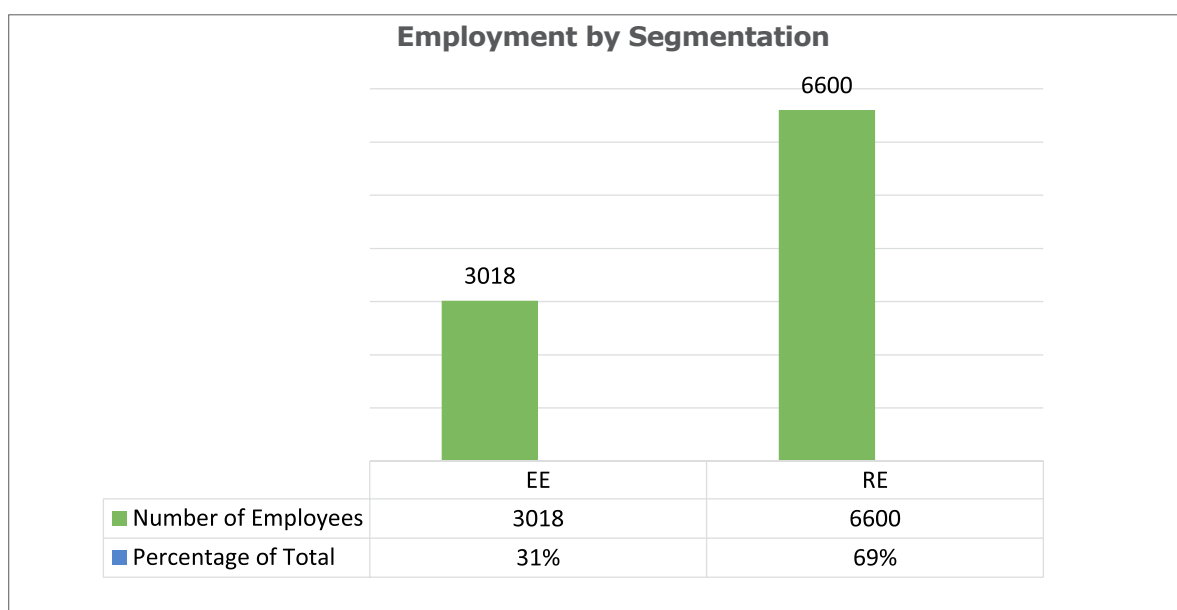
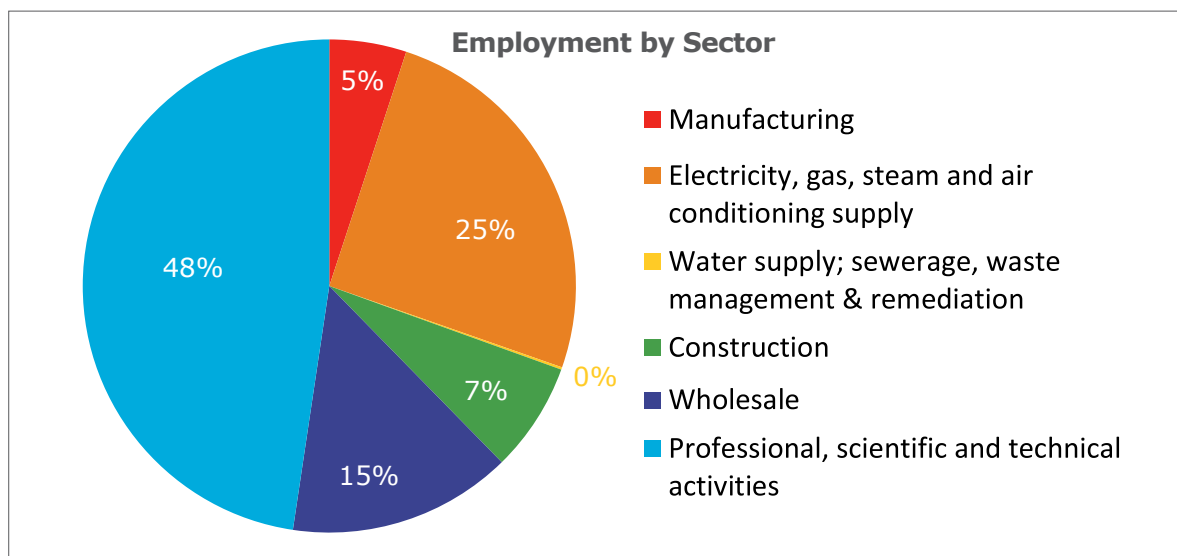


The average foreign employment stands at 2.70% of total employees

Employment Including Utilities

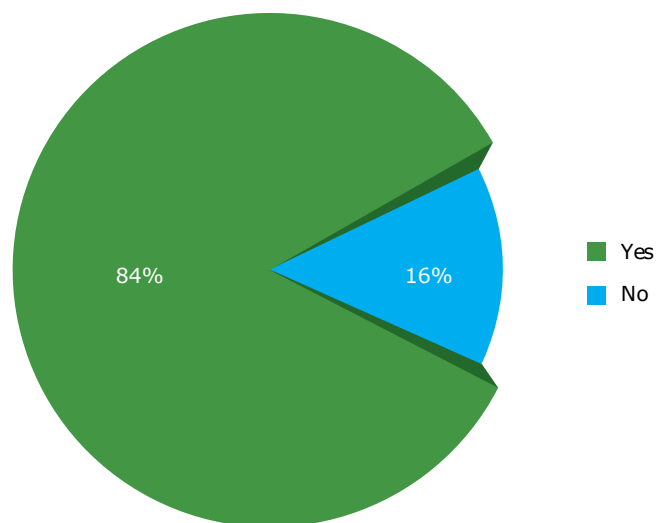
Employees EE companies/non-participating companies	4,483
Employees RE companies/non-participating companies	1,897
Employees EE companies/participating companies	3,018
Employees RE companies/participating companies	6,600
Total employees/non-participating companies	6,380
Total employees/participating companies	9,618
Total Clean-tech Sector Employees	15,998

Participating Companies

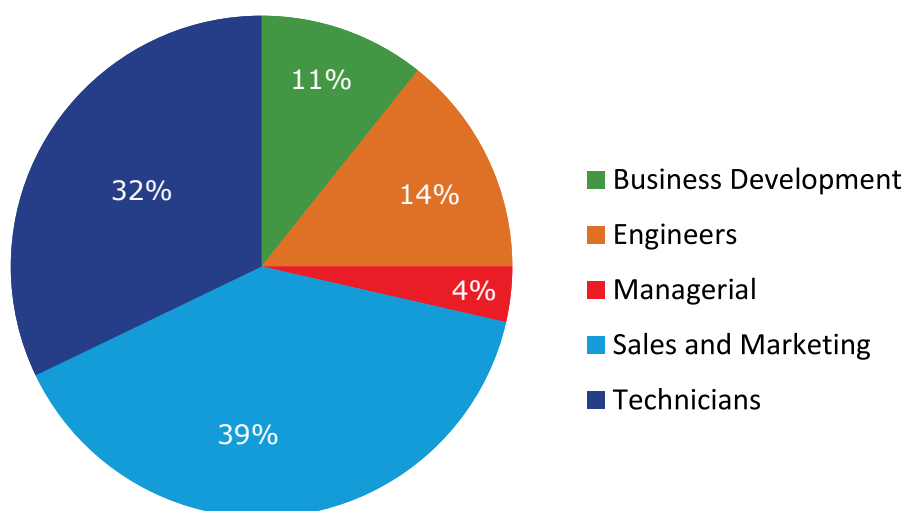


Employment Needs

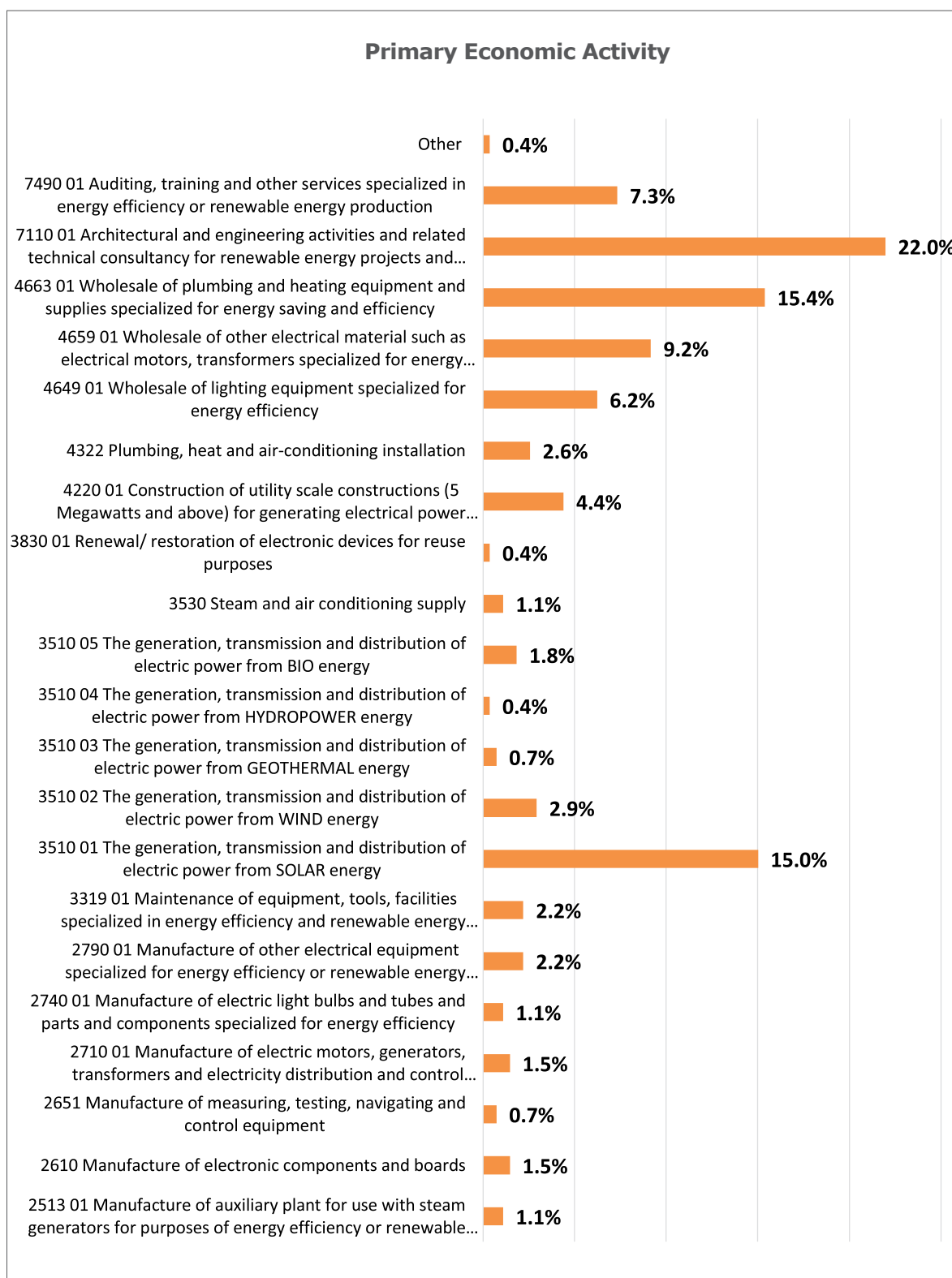
Are your firm's employment needs being met?



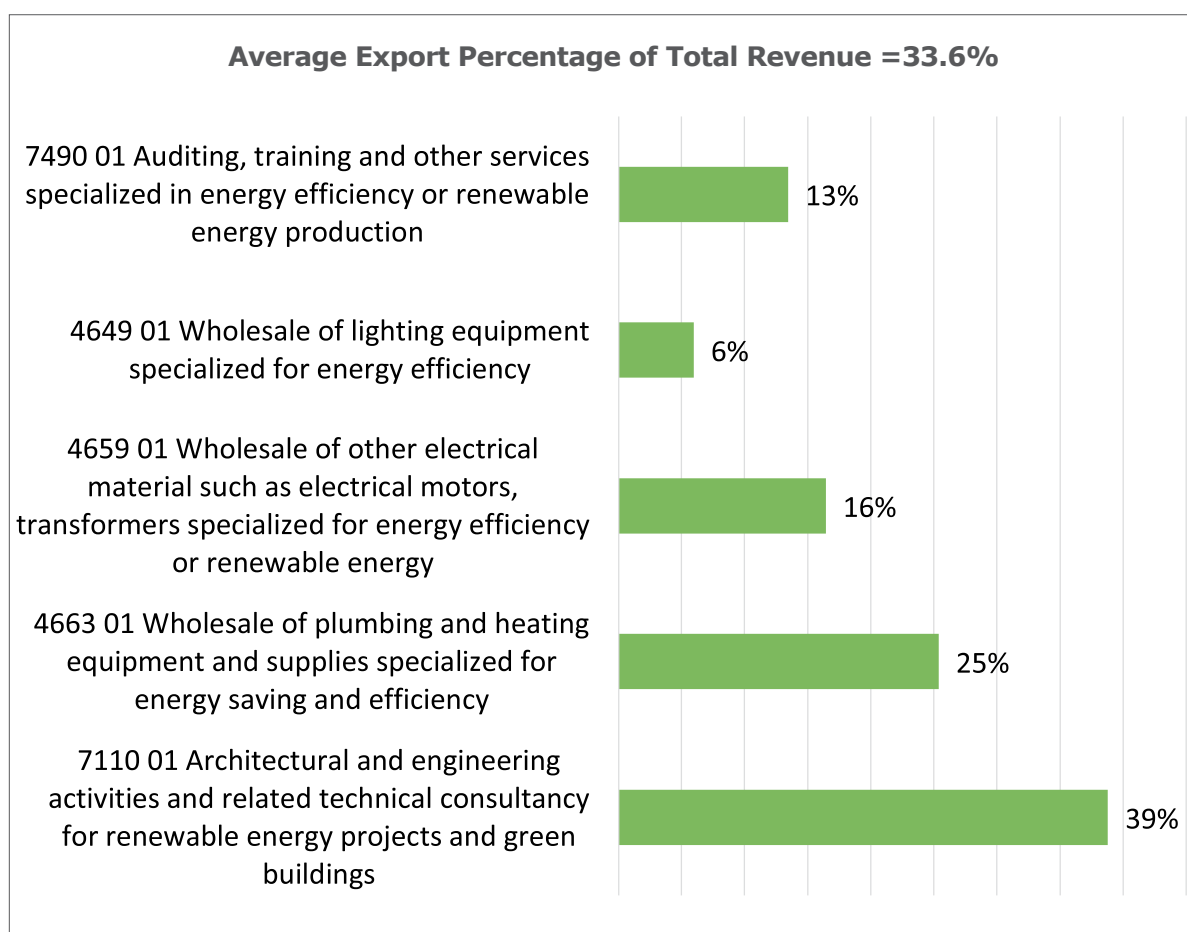
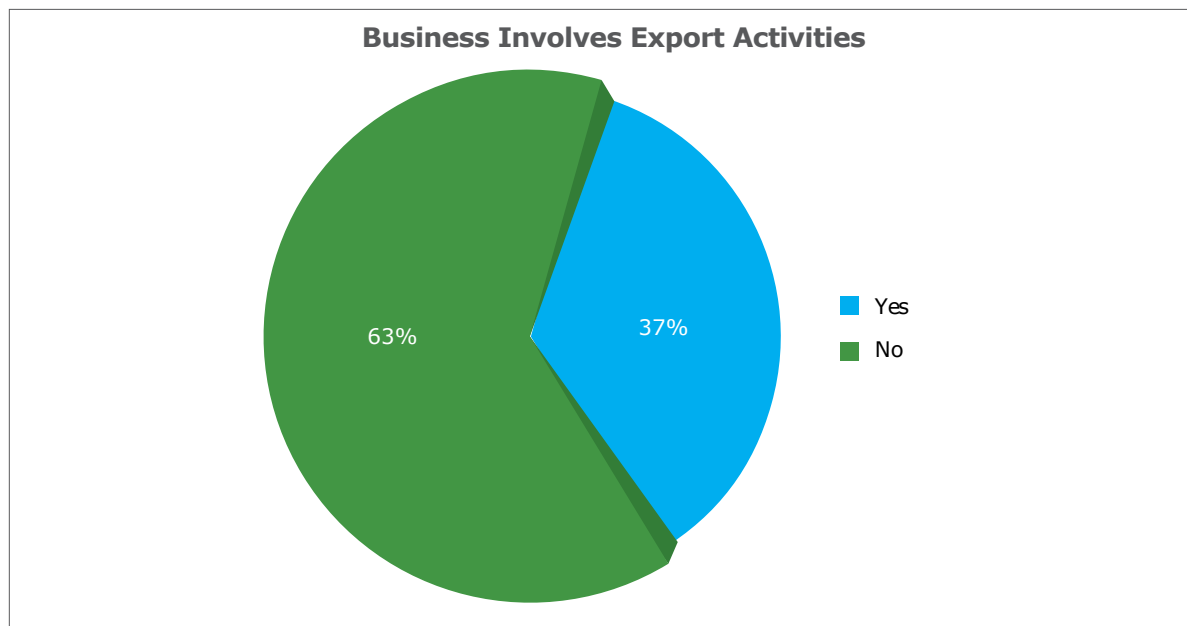
Unmet Needs - Needed Professionals by Function



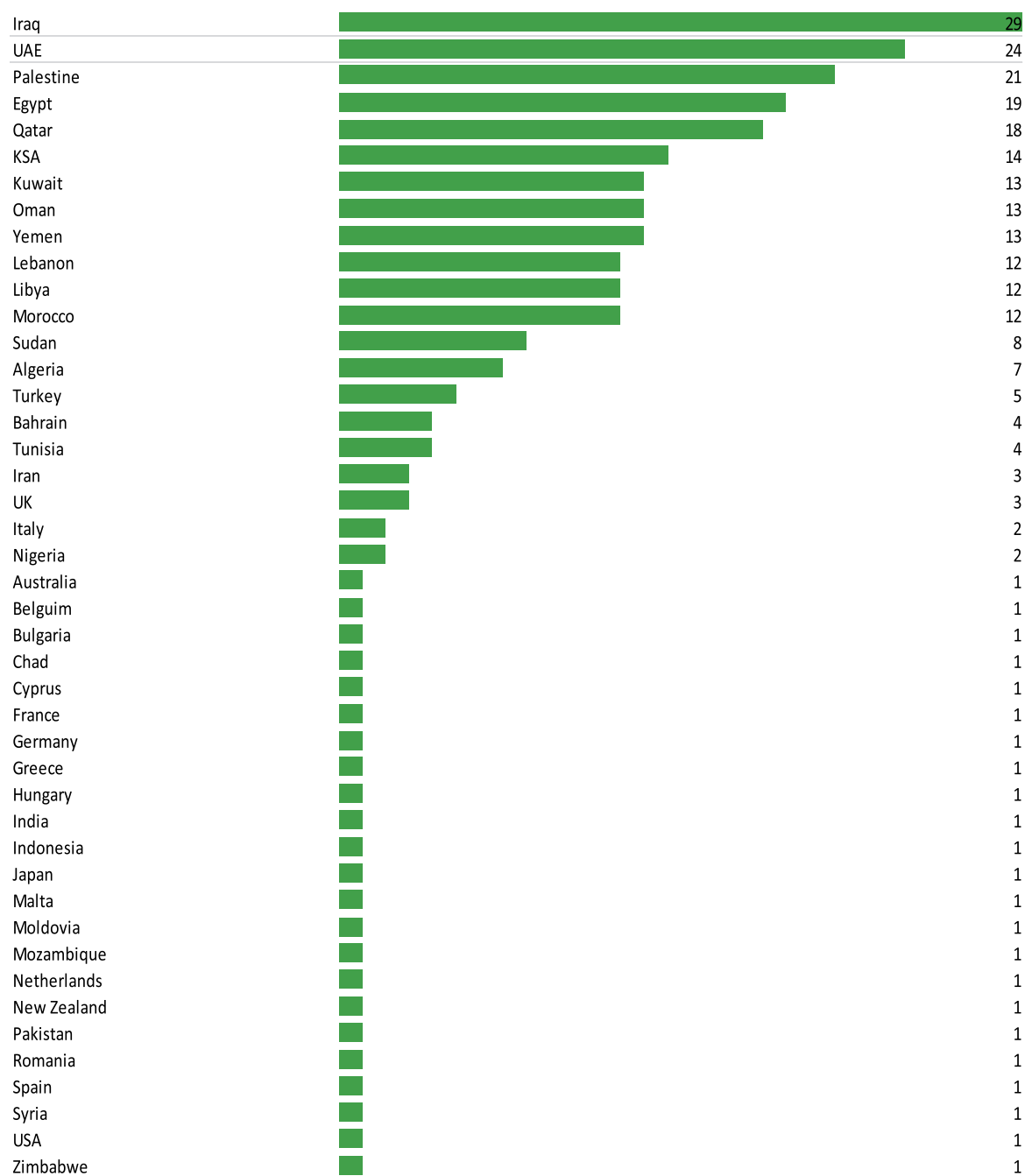
Primary Economic Activity for Participating Companies Including Utilities



Export



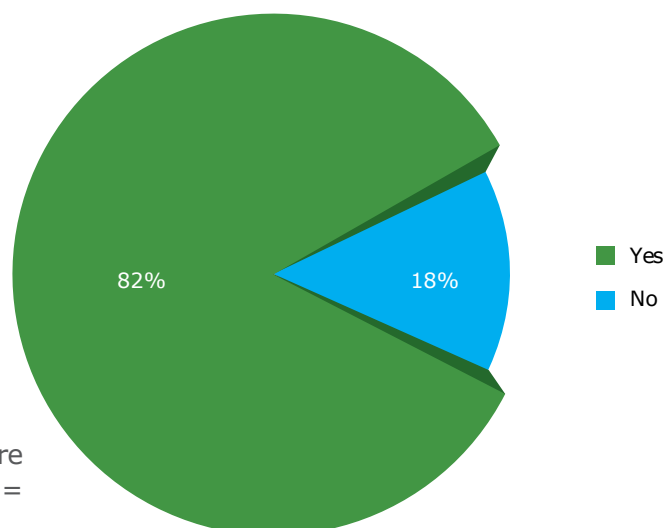
Export Countries





Ownership

Full Jordanian Ownership



Average Foreign Share
from Total Investment =
60%

Country of Foreign Partner

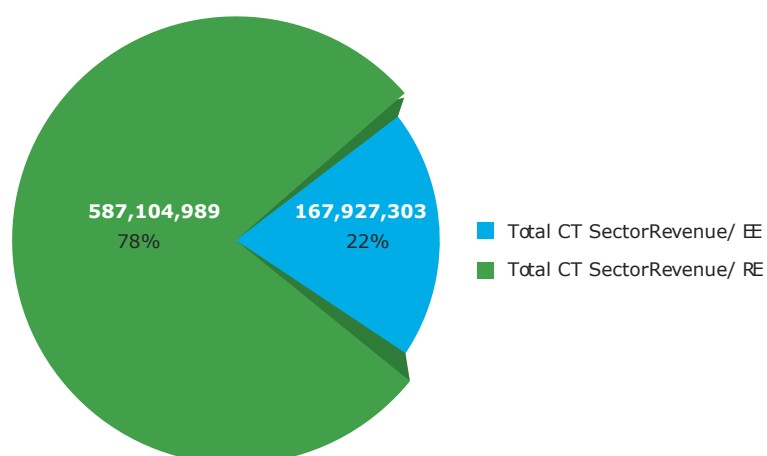
Other Arab countries (in Asia)	10
North America	5
Europe	3
GCC - One of the Gulf states	2
Other Asian countries (not Arab)	1
Far Eastern (Asia)	1
North Africa	1
South America	1
Australia	1

REVENUE

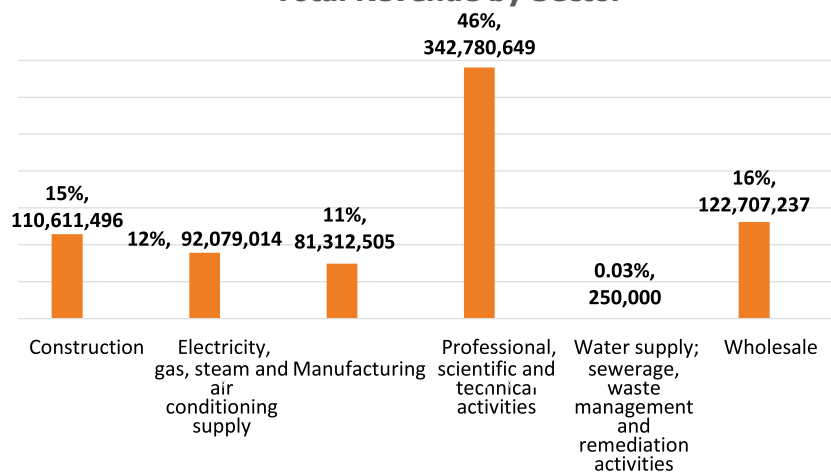
Revenue Excluding Utilities

EE Revenue - Non-participating Companies	238,717,875
RE Revenue - Non-participating Companies	39,145,891
Total Revenue - Non-participating Companies	277,863,766
EE Revenue - Participating Companies	348,387,114
RE Revenue - Participating Companies	128,781,412
Total Revenue - Participating Companies	477,168,526
Total Clean-tech Sector Revenue	755,032,292
Total Clean-tech Sector Revenue/ EE	587,104,989
Total Clean-tech Sector Revenue/ RE	167,927,303
Mean	2,491,856

Total Revenue by Segmentation



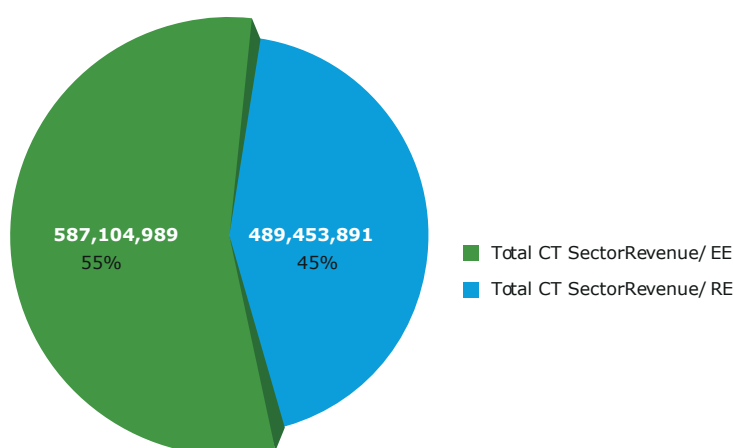
Total Revenue by Sector



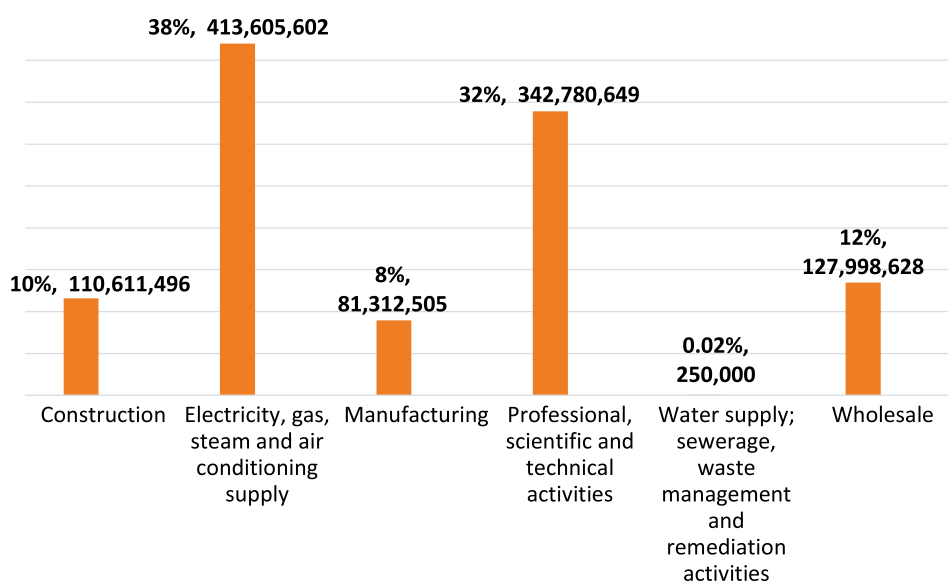
Revenue Including Utilities

EE Revenue - Non-participating Companies	238,717,875
RE Revenue - Non-participating Companies	104,139,149
Total Revenue - Non-participating Companies	342,857,024
EE Revenue - Participating Companies	348,387,114
RE Revenue - Participating Companies	385,314,742
Total Revenue - Participating Companies	733,701,856
Total Clean-tech Sector Revenue	1,076,558,880
Total Clean-tech Sector Revenue/ EE	587,104,989
Total Clean-tech Sector Revenue/ RE	489,453,891
Mean	3,506,706

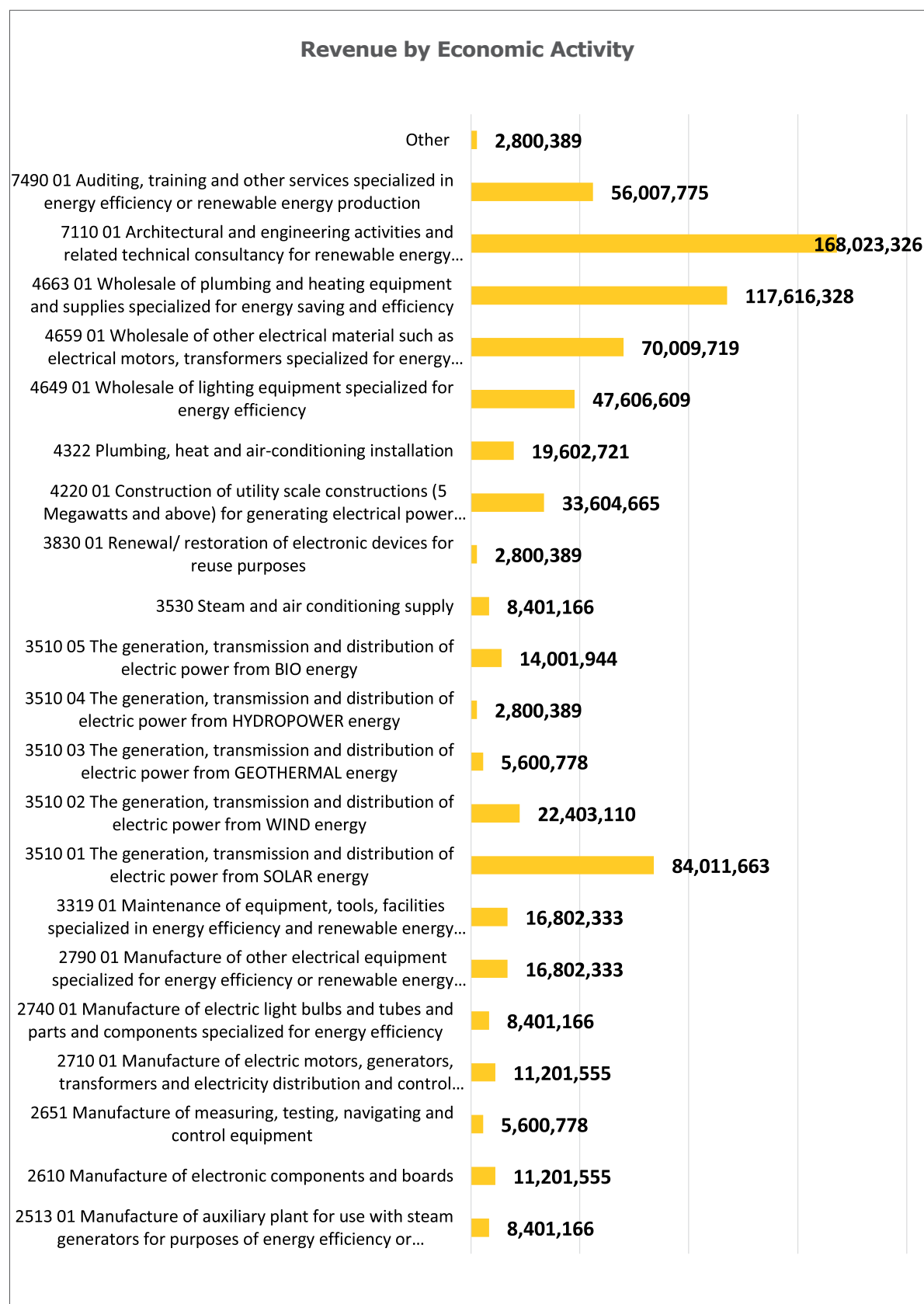
Total Revenue by Segmentation



Total Revenue by Sector



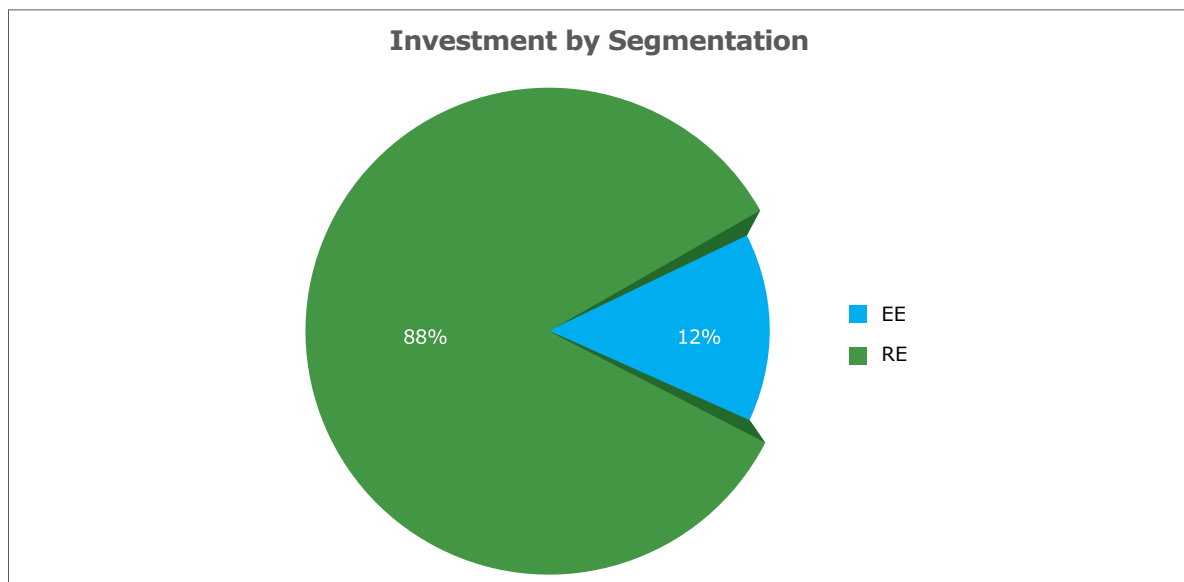
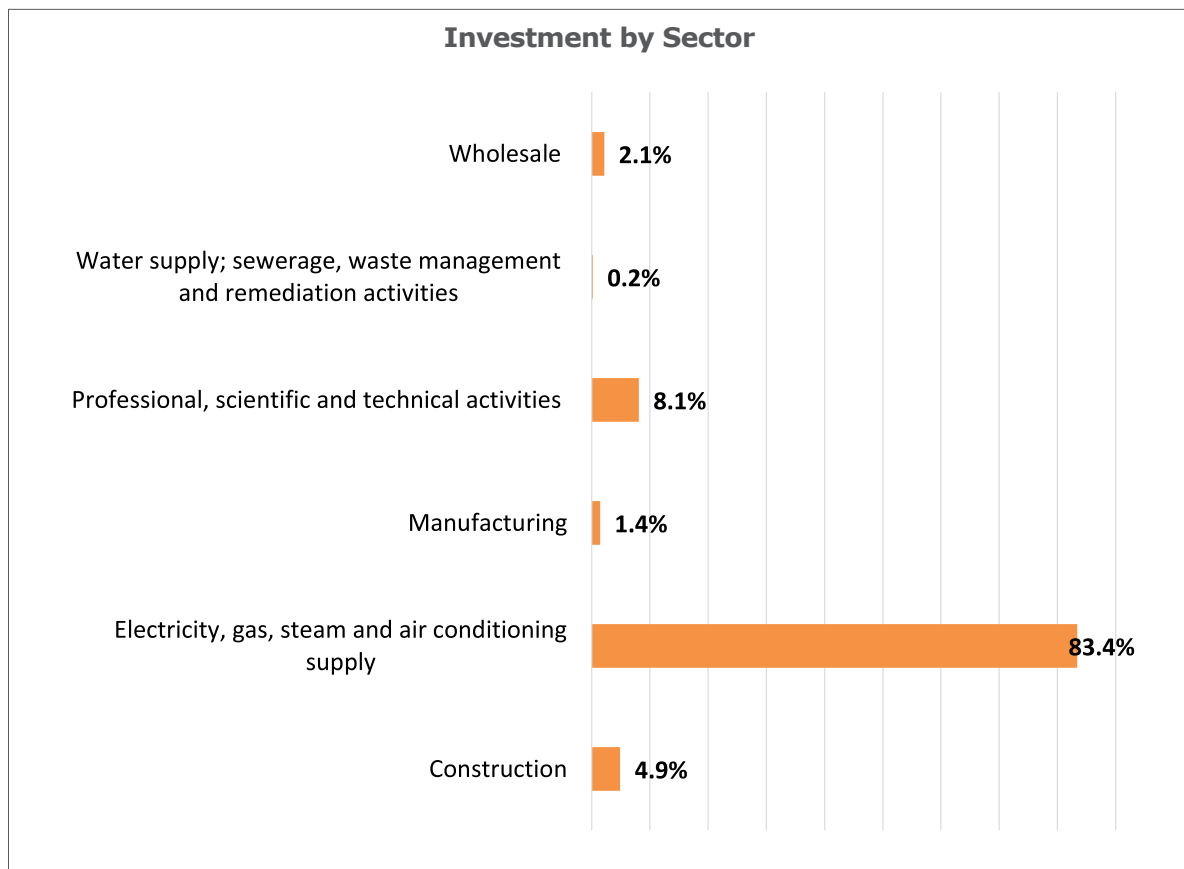
Revenue by Economic Activity for Participating Companies (Including Utilities)



Investment

Registered Capital Including Utilities

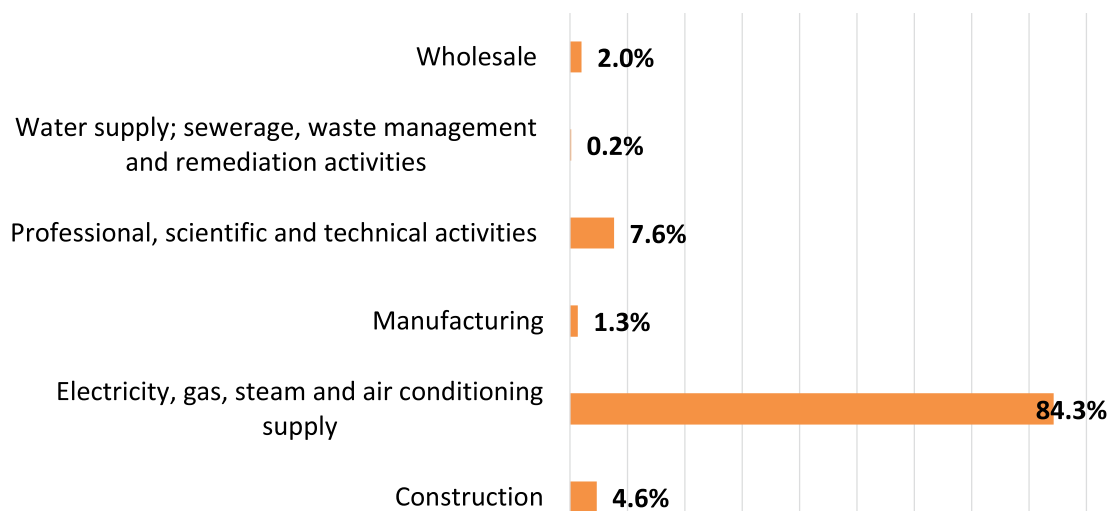
Number of Responses	137
Total Investment	2,467,580,250
Mean	18,011,535
Median	250,000
Mode	50,000



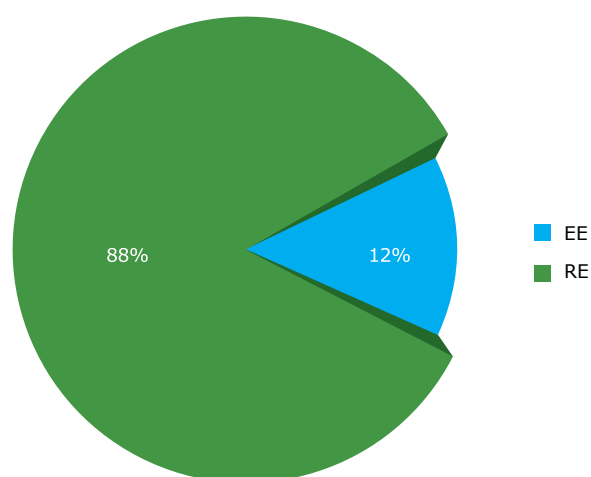
Investment Including Utilities

Number of Responses	138
Total Investment	2,609,380,243
Mean	18,908,552
Median	250,000
Mode	50,000

Investment by Sector



Investment by Segmentation



Investment Breakdown



Sector Needs

None	18
Need for company accreditation	30
Marketing support	96
Availability of qualified staff	53
A better legislative/ regulatory environment	64
Need for training/ certification for employees	53
Access to regional and international trade fairs and events	69
Stronger business development	70
Corporate support services (research, grant writing...etc.)	46
Other	9

3. APPENDICES

3.1. CLEAN-TECH ECONOMIC ACTIVITIES ISIC 4

Table 2: Clean-tech Economic Activities according to ISIC 4

Section/ Sector	Class/ Sub-class	Description
Section C - Manufacturing	2513 01	Manufacture of auxiliary plant for use with steam generators for purposes of energy efficiency or renewable energy production
	2610	Manufacture of electronic components and boards
	2651	Manufacture of measuring, testing, navigating and control equipment
	2710 01	Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus specialized for energy efficiency or renewable energy production
	2720 01	Manufacture of clean-tech rechargeable batteries for energy storage
	2740 01	Manufacture of electric light bulbs and tubes and parts and components specialized for energy efficiency
	2750 01	Manufacture of household appliances specialized for energy saving
	2790 01	Manufacture of other electrical equipment specialized for energy efficiency or renewable energy production
	2811	Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
Section D - Electricity, gas, steam and air conditioning supply	3319 01	Maintenance of equipment, tools, facilities specialized in energy efficiency and renewable energy production
	3510 01	The generation, transmission and distribution of electric power from solar energy

Section/ Sector	Class/ Sub-class	Description
	3510 02	The generation, transmission and distribution of electric power from wind energy
	3510 03	The generation, transmission and distribution of electric power from geothermal energy
	3510 04	The generation, transmission and distribution of electric power from hydropower energy
	3510 05	The generation, transmission and distribution of electric power from bio energy
	3530	Steam and air conditioning supply
Section E - Water supply; sewerage, waste management and remediation activities	3600	Water collection, treatment and supply
	3700	Sewerage
	3811	Collection of non-hazardous waste
	3812	Collection of hazardous waste
	3821	Treatment and disposal of non-hazardous waste
	3822	Treatment and disposal of hazardous waste
	3830	Materials recovery
	3830 01	Renewal/ restoration of electronic devices for reuse purposes
Section F - Construction	4220 01	Construction of utility scale constructions for generating electrical power from renewable energy sources

Section/ Sector	Class/ Sub-class	Description
	4322	Plumbing, heat and air-conditioning installation
Section G - Wholesale and retail trade; repair of motor vehicles and motorcycles	4649 01	Wholesale of lighting equipment specialized for energy efficiency
	4659 01	Wholesale of other electrical material such as electrical motors, transformers specialized for energy efficiency or renewable energy production
	4663 01	Wholesale of plumbing and heating equipment and supplies specialized for energy saving and efficiency
	4669	Wholesale of waste and scrap and other products n.e.c.
Section M - Professional, scientific and technical activities	7110 01	Architectural and engineering activities and related technical consultancy for renewable energy projects and green buildings
	7490 01	Auditing, training and other services specialized in energy efficiency or renewable energy production

3.2. LIST OF CLEAN-TECH COMPANIES IN JORDAN BY ACTIVITY

Table 3: List of Clean-tech Companies in Jordan by Activity

2513 01: Manufacture of auxiliary plant for use with steam generators for purposes of energy efficiency or renewable energy production
IRIS Manufacturing Technology
Omega Co.
Global Smart
Mineral Industries company LLC
2610: Manufacture of electronic components and boards
June Technologies
Haitham Al Attal Institution for Electricity Generators
Beta Switch Gear Co
2651: Manufacture of measuring, testing, navigating and control equipment
Modern Electro Technical Corp MEC
IRIS Manufacturing Technology
2710 01: Manufacture of electric motors, generators, transformers and electricity distribution and control apparatus specialized for energy efficiency or renewable energy production
June Technologies
Modern Electro Technical Corp MEC
Electrical Equipment Industries Company EEIC
East Star Electrical East ESE
Jinan Company for Electric Plates Industries*
Mustafa Shaaban for Transformers*
iBAL Electric*
Jawad Electric Switchgear Co JESCO*
Jundi Electrical Industry Est*
ELREHA German American for Electronics Industry*
New Age for Automation & Switchgear Est NAAS*
Al Mehwar Electrical Boards Industry Co*
IdealChip Electronics*
Industrial Techniques Engineering Electromechanical Co ITECO*
Moha Factory for Engineering Industries*
2720 01: Manufacture of clean-tech rechargeable batteries for energy storage
International Storage Batteries Company Ltd. *
2740 01: Manufacture of electric light bulbs and tubes and parts and components specialized for energy efficiency
Mohammad Faisal Sharbati & Co.
Al Wafa Company for Manufacture Lighting and Panels *

Jordan Saraya for Industry and Innovation Co JSII*
National Electrical Industries NEI Jordan*
Jordanian British Company for Electrical Industries *
Ray Institution for Lighting*
2750 01: Manufacture of household appliances specialized for energy saving
General Technical Industrial Company*
Romo Home Appliances*
Middle East Institution for Heating Equipment Trade & Industry Euro Boilers*
2790 01: Manufacture of other electrical equipment specialized for energy efficiency or renewable energy production
Advanced Engineering Industrial Co
Modern Electro Technical Corp MEC
Seima Industries for Renewable Energy Company
Monitoring for electronic systems
Philadelphia Solar L.L.C.
Arbeel Engineering Industries Co
2811: Manufacture of engines and turbines, except aircraft, vehicle and cycle engines
Man Diesel and Turbo*
3319 01: Maintenance of equipment, tools, facilities specialized in energy efficiency and renewable energy production
Arbeel Engineering Industries Co
Dajani Engineering Materials Trading Co.
Al Tazamon Renewable Energy
Global Smart
Millennium Energy Industries
Philadelphia Solar L.L.C.
3510 01: The generation, transmission and distribution of electric power from solar energy
Ideal Solar Energy Co. Ltd.
ETAmaz Energy & Environmental Solutions
International Technical Assistance Consultants ITAC
Infinite Energy
Second Energy
Ayyash for Energy
Future Energy Projects Development Co
Reetaj Company for Solar Energy
Gazania Solar Systems
Grun Arabia
Trust Energy Solutions
Al Bustanje Renewable Energy
Samra Electric Power Company (SEPCO)

Petra Solar / Petra System
Taqetna
Kan Renewables
Besolar
City Spark Energy
Irbid District Electricity Company
AES Jordan PSC
Shams Jordan for Alternative Energy Solutions
Kawar Energy
Super Solar for Energy & Engineering LLC
Consolidated Energy and Economic Engineering
Millennium Energy Industries
Philadelphia Solar L.L.C.
Clean Energy Concept
Kawkabuna for Energy Solutions
Mustakbal Clean Tech
Modern Times Int. for Energy Systems
Al-Intishar Technology Consultants*
ALMASAR Engineering for Energy Saving Solutions*
ArcSolar Renewable Energy*
Central Electricity Generating Company*
Clean Energy for Renewable Energy LLC*
Clean Solutions*
Golden Wing Co. *
Jordan's Wind Project Company for Renewable Energy*
MASE (Modern Arabia Solar Energy) *
Panmed*
Petra Institution for Solar Energy *
Philadelphia Company for Solar Energy *
Second Energy *
Shamsi Al Sateah for Alternative Energy Solutions*
Spectrum International Investment*
The Contractor Company for Energy*
The Target for Renewable Energy *
Shams Maan Power Generation PSC*
Al Jana For Power Generation Co*
Amman Asia Electric Power Station*
Al Zarqa Station for Electrical Power Generation Co*
Wartsila Gulf Co*
Regional for Renewable Energy Co*
Shams Al Fosol for Solar System Co*
Al Kawkabah Al Khadhra for Renewable Energy & Electromechanical Systems*
Technical Active Energy Co*

Sustainable Vision for Renewable Energy Co*
3D Green Building *
3510 02: The generation, transmission and distribution of electric power from wind energy
North Wind of Alternative Energy Technology Co
Taqetna
Kan Renewables
Irbid District Electricity Company
Shams Jordan for Alternative Energy Solutions
Super Solar for Energy & Engineering LLC
Modern Times Int. for Energy Systems
International Technical Assistance Consultants ITAC
3510 03: The generation, transmission and distribution of electric power from geothermal energy
International Technical Assistance Consultants ITAC
Millennium Energy Industries
3510 04: The generation, transmission and distribution of electric power from hydropower energy
International Technical Assistance Consultants ITAC
3510 05: The generation, transmission and distribution of electric power from bio energy
International Technical Assistance Consultants ITAC
Jordan Biogas Company
Al Asalah
Millennium Energy Industries
Super Solar for Energy & Engineering LLC
3530: Steam and air conditioning supply
United Electromechanical International Company
Al-Mazar Engineering
Ideal Solar Energy Co. Ltd.
3600: Water collection, treatment and supply
Al- Maida industrial company
Al-Esra' Factory for Irrigation Pipes Company
Al-Mada for drip irrigation
Al-Samrah Plant Operation & Maintenance Company
Arab Company for the provision of water Technology
Awj Water Engineering Company
Best Environmental Services Technology
Chemical Supplies Company CESSCO
Gibraltar Contracting Company
International for Lining Irrigation Canals

Jordan River Environmental Technology
Karama Drip Irrigation Institution
Nabil Ayyoub Wakileh & Partners Company
National Concord Institution
National Institution for Water Treatment
New World for Water Technology
The factory Comprehensive Water Treatment Equipment
Universal for Industry of Drip Irrigation Pipes
Zaid Mahmoud Institution for Irrigation Systems
The Inter Islamic Network on Water Resources Development & Management
Tabaqet Fahel Water Station
Fusion for Water Treatment Co
Latefa Water Factory
Logistics for Waste Management Co
Channel Factory for Water Equipment
Qualified for Water Technology QWT
Orient Water Treatment Est
Al Tatweer Al Hadari Water
Nahhas World Business Center
EnviroBlend for Water Treatment
Index Water Systems
Mustafa Al Jaar Establishment for Consultation
3700: Sewerage
Engineering Plastic Industries Co.
Rebhi Ali Ghosheh & Sons Co. for Trading & Plastic Products
3811: Collection of non-hazardous waste
Clean City for Waste Management
Zawati Brothers Co. W.L.L
3812: Collection of hazardous waste
Alnasser Group
3821: Treatment and disposal of non-hazardous waste
Entity green
3822: Treatment and disposal of hazardous waste
Green Environment for Environment Equipment Trading Co
Alnasser Group
3830: Materials recovery
Advanced Technical Recycling Material Co.

Al-Failaq for Recycling & Industry plastic
Al-sawsanah Al-sawda'a
Green Future Solutions
JOCYCLE
Jordan Cardboard Manufacturing Company
Maram for Plastic Industries
Musili's partners Company
Saba recycle rubber Company
White Gold Factory for Plastic Recycle Industries
International Storage Battery Co
3830 01: Renewal/ restoration of electronic devices for reuse purposes
Millennium Energy Industries
4220 01: Construction of utility scale constructions for generating electrical power from renewable energy sources
Jordan Advanced Industrial & Mineral Services Co
Technical Arab Contracting Group
IMKAN for Multi Construction Ent.
Reliance Power Services & Construction
Aasics Architects
Mechanical Engineers & Contractors (MEC)
Associated Transtech Contracting
Kan Renewables
Kawar Energy
Clean Energy Concept
Mustakbal Clean Tech
Kawkabuna for Energy Solutions
Al Raha Construction & Contract Co*
Arab Technical Construction Co.
Najib Al-mughrabi Institution for Contracting
4322: Plumbing, heat and air-conditioning installation
Al-Mazar Engineering
Nael Al Attia Contracting Est. (NACE)
IMKAN for Multi Construction Ent.
Jordan District Energy
Arab Technical Group
Sras Electromechanical contracting and renewable energy
NUR Solar Systems
Ideal Solar Energy Co. Ltd.
Petra Engineering Industries*
Carrier United Technology*

4649 01: Wholesale of lighting equipment specialized for energy efficiency
Al-Bareq for Electrical Supplies Company
Mohammad Faisal Sharbati & Co.
Jordan Bautak Company
Albert Srouji Contracting Establishment
Multi Electromechanical Trading Co. (MEMCO)
Riyad Al-Haddad Sons Co
Sadara Electrical Supplies
Dalil Engineering System
SAM Eng. & Trade Co.
Fikra
Shamsi Alsateah for Alternative Energy Solutions
Gamirza for Alternative Energy Co
Al Masar Engineering Company
Trans Jordan for ElectroMechanical Supplies PLC.
MEGNA Electro Mechanic Solutions
Ray Institution for Lighting
Advanced Alternative Energy Systems Co.
ETAmaz Energy & Environmental Solutions
4659 01: Wholesale of other electrical material such as electrical motors, transformers specialized for energy efficiency or renewable energy production
Billeh Electrical Materials Company BEMCO
Izzat Marji Group
Sources for Engineering Supplies Company
Al-Bareq for Electrical Supplies Company
Jordan Tractor and Equipment Co
Albert Srouji Contracting Establishment
Multi Electromechanical Trading Co. (MEMCO)
Ideal Control Systems Co
Al Atheer Co for Manufacturing & Trading Electronic Panel
United Pioneering Business for Trade & Investment Ltd.
Kettaneh & Partners
Dalil Engineering System
SAM Eng. & Trade Co
Shamsi Alsateah for Alternative Energy Solutions
Gamirza for Alternative Energy Co
Global Renewable Energy Systems Co.
Husban Solar Institution
Global Energy Co
NUR Solar Systems
Al Masar Engineering Company
Trans Jordan for ElectroMechanical Supplies PLC.

Generators for Solar Energy
Mazen Dajani & Co
MEGNA Electro Mechanic Solutions
Integrated Power Systems*
Energy Trap for Energy Saving System Co ETCO*
Second Energy Co*
Mazzawi Trading Co MATCO*
SunRay Solar Technologies Co*
Adam Energy*
Khadash Renewable Energy Est*
SCS for Energy Solutions Co*
Enviromena Power Systems Co*
City of Lights *
ELE Tech *
Control Solar Est. *
4663 01: Wholesale of plumbing and heating equipment and supplies specialized for energy saving and efficiency
Izzat Marji Group
ACE Supplies & Trading Co.
Arslan Engineering Systems
Sources for Engineering Supplies Company
EnviroCaregy Co
Union Metal for forming & Engineering Industries Company Ltd.
Multi Electromechanical Trading Co. (MEMCO)
Green Limits Engineering Supplies
Ideal Control Systems Co
Ferasah for Development and Engineering Training
United Pioneering Business for Trade & Investment Ltd.
Economical Company for Solar Services
Grun Arabia
Dalil Engineering System
SAM Eng. & Trade Co.
First Jordan Sun for Renewable Energy Co
Al-Manhal Renewable Energy
Shamsi Alsateah for Alternative Energy Solutions
KACO new energy - Jordan Branch
Al Salam Boilers Factory
Husban Solar Institution
Msherbash Solar Energy
Global Energy Co
NUR Solar Systems
Al Masar Engineering Company
Green City Renewable Energy Systems

Trans Jordan for ElectroMechanical Supplies PLC.
Modern Times Int. for Energy Systems
Generators for Solar Energy
Piercing Pellet Renewable energy
Al-Shahrouri for Solar Heating Company
Edom for Renewable Energy
Seasons for Trade and Investment
Wathba Investment Company
MEGNA Electro Mechanic Solutions
Ray Institution for Lighting
Kawkabuna for Energy Solutions
ETAmx Energy & Environmental Solutions
Green Heating Luxury Co. "Rafahea"*
Itefaq Projects Services Co*
7110 01: Architectural and engineering activities and related technical consultancy for renewable energy projects and green buildings
2K Architects, Planners and Engineers
Universal Consultancy Services
Alliance of Middle East Engineering Consultants
Baha Engineering Consultant
Maisam Architects & Engineers
Al-Manar Housing
Engineering Studies for Soil and Materials Tests
ConsultUS
Consoildated Consultants Group
E2E Integrated Solutions
Symbiosis Design LTD
International Technical Construction Co.
Meroun Green Solution (MGS)
Yaghmoor Office for Engineering Consulting
Manar Consulting Engineers
Al Boucai Engineering Consulting Bureau
Tahan & Bushnaq Consulting Engineers
Faris Bagaeen, architects engineers consultants
Al Mustashar Lil Handaseh (Trading as Engicon)
SIGMA-Consulting Engineers
Field for Electromechanical Supplies
Associated Consulting Engineers Int'l - ACE Jordan
Alfa for Energy, Environment & Engineering LLC
Ruqn Al Handasa
MEDA Consulting Engineers
ECO Consult
Arabtech Jardaneh Engineers and Architects

Archisys
Proton Engineering Systems Co. Ltd.
Faris & Faris Architects
Mzyyar Engineering Consulting
Jordan Green Building Council
Allabadi & Hamdan
Elite for Energy & Engineering Co
Mostaqbal, Engineering& Environmental Consultants
Assariya Electro-Mecahnical Contractors
Planners for Development and Engineering
ECO Engineering & Energy Solution
Interdisciplinary Research Consultants
Arab Center for Engineering Studies
Gazania Solar Systems
Makeen for Training, Consulting & Business Development
Associated Jordanian Bureau for Hightech Ltd
Grun Arabia
BidPai Consulting
Spectrum Consulting Engineers
Panmed Energy
European Jordanian Renewable Energy Projects
Nour Al Shames for Renewable Energy Co
Alkhazanh for Renewable Energy and Trade
Double Source for Renewable Energy
Kawar Energy
Mohammed Dib Kassab Bashi & Sons Co.
Consolidated Energy and Economic Engineering
Mustakbal Clean Tech
Kawkabuna for Energy Solutions
Millennium Energy Industries
Ideal Solar Energy Co. Ltd.
ETAmaz Energy & Environmental Solutions
Al Asir Company *
Al Samer Housing Projects Co. *
Al-Manassa for Engineering Consulting *
Al-masar for Firefighting and alarm*
Al-Morsah for Consulting and Project Administrative *
Al-Qeema for Engineering Consulting *
Al-Tarawneh and Al-Da'aja for Consulting*
Al-Zaqora for Engineering*
Amjad Dar Al-Salam for Contracting *
Asad babil for Energy Projects*
Ayla Oasis*

Bitar Consultants Engineers*
Competence Management Consulting *
Concorde Construction*
Consolidated Consultant for Engineering & Environment Co. *
Consolidated Contractors Company CCC*
Consolidated Engineering Construction Company CECC*
Dar Al-Omran *
Dar Al-Omran Infrastructure & Environment *
FIDIC*
International Designers*
Jain Consultants International Inc. *
Mechanical Engineering & Contractors Est. *
Memar Company*
Mostaqbal Engineering and Environmental Consulting *
Panorama Consulting Engineers *
Sabeel for Engineering*
Satchnet*
Specialized Markets for Investment*
Sustainable Environmental & Energy Solution*
The Green Flat for Residential Project ACG*
Three Jeem for Engineering Consulting*
Turath: Architecture & Urban Design Consultants *
Dar Al Handaseh *
Integrated Management & Information Consultants Co IMI Groups*
Sobeh Consulting Engineers*
Madi & Partners Consulting Engineers Co MPCE*
Amman Renewable Energy Co AREC*
Catalyst Investment Management Co. *
Palestine for Engineering
7490 01: Auditing, training and other services specialized in energy efficiency or renewable energy production
E2E Integrated Solutions
Assarai Engineering Firm
Alfa for Energy, Environment & Engineering LLC
Arabtech Jardaneh Engineers and Architects
Archisys
Al Jhood Joint Efforts Group for Development & Consultation JJEG
Middle East Laboratory Testing and Technical Services Co.,
Elite for Energy & Engineering Co
Energy Management Services
Planners for Development and Engineering
ECO Engineering & Energy Solutions
Exergy Technical Alternative Solutions Co

Associated Jordanian Bureau for Hightech Ltd
Water Food & Energy for Environmental Resources Management Co. (ALMAKAN)
Al Rawabi Environmental & Energy Consultancies
Alkhazanh for Renewable Energy and Trade
Jordan Climate Change Consultancy Co
Consolidated Energy and Economic Engineering
GreenTech
Millennium Energy Industries
Ideal Solar Energy Co. Ltd.
ETAmaz Energy & Environmental Solutions
Firas Balasmeh Corporation for Control Systems *
Competence Management Consulting *
Engineering Dimension for Technology*
Engineering Projects*
MMGM*
Mostaqbal Engineering and Environmental Consulting *
Sustainable Environmental & Energy Solution*
Sustainability Excellence Arabia*
Kunzite Construction Contracting Co*
Al Karam for Energy Saving Co*
Amlak Global AG *
Jordanian Australian for Renewable Energy Co*
Terra Vertis*
Advanced Consulting & Trading Co*
Jadara institution for Renewable Energy*
Arabtech Jardaneh- Water and Environment*
Experience Provider Smart Energy Solutions*
GXperts for Energy Systems & Solutions *
Jordan Renewable Energy Society*
Modern Times Int. for Energy Systems*
National Center for Research and development \Energy Research Program*
Amman Renewable Energy Co AREC*
Catalyst Investment Management Co. *
Zawati Brothers Co. W.L.L
International Storage Battery Co

*Companies that did not participate in the survey

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ABOUT EDAMA

EDAMA is an Arabic word meaning “sustainability”. EDAMA Association is a Jordanian NGO established in 2009. EDAMA was founded in 2009 pursuant to the EDAMA initiative of 2008 which was launched as a nationwide effort to activate the role of the private sector in realizing the targets outlined in the Master Energy Strategy developed by the Royal Commission in 2007. The initiative evolved in 2009 into a Business Association primarily concerned with developing an environment conducive to the establishment of a green economy in Jordan.

EDAMA seeks innovative solutions for energy and water independence and environmental conservation. The Association strives to advance Jordan’s movement towards a green economy via creating a vibrant new economic sector of energy businesses, driving applied research, developing and commercializing Jordanian technologies, building public awareness, and advocating for policies that will make Jordan a model of energy efficiency, water conservation and environmental stewardship.

EDAMA is the first and only association of its kind in Jordan servicing the energy, water and environment sectors. It provides a platform for a large number of public, private and NGO sector representatives to discuss the future development of the Energy, Water and Environment sectors in Jordan.

EDAMA has a membership of 85 companies. EDAMA’s members represent all sectors of Jordan’s economy, and their membership indicates their willingness to support EDAMA in furthering Jordan’s transition to a green economy.

EDAMA’s membership base includes 34 Renewable Energy & Energy Efficiency companies, 10 banks (most of which provide green services), 2 of the top leasing companies, 9 consulting companies (legal, auditing and environmental) as well as 2 Multinational Financial Institutions (EBRD & IFC). Those combined represent the biggest players across the value chain in the Clean Technology sector in Jordan.

EDAMA’s contributions range from sector-level and nation-wide support and its work spans across four main pillars: 1) Public Advocacy, 2) Capacity Building and Certification, 3) Awareness, Education and Innovation, 4) Networking and Business Development. It also develops and implements community-oriented initiatives.



ABOUT JORDAN COMPETITIVENESS PROGRAM USAID-JCP

The USAID Jordan Competitiveness Program (JCP) works with policymakers, business associations, and the private sector to: 1) draft and advocate for enabling legislation and regulation; 2) leverage these policy interventions to stimulate exports and attract foreign direct investment, especially to Jordan's specially designated development zones; and 3) ensure that these investments result in employment opportunities for Jordanians and, where appropriate, other residents of the Kingdom.

To these ends, USAID JCP works closely with other USAID programs and relevant Government of Jordan entities to identify investment opportunities made possible by the Jordan Compact—which includes, among other stipulations, relaxed rules of origin for Jordanian exports to the European Union. By coordinating closely with the Compact's Program Management Unit (PMU), which is housed at the Ministry of Planning and International Cooperation, USAID JCP seeks to add value to the current efforts of the broader donor community.

Contracted by EDAMA Association, this project was conducted by



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