Hashemite Kingdom of Jordan
National Methods For Energy Data Collection

Ms. Arwa AbuKashef (Eng, REP, MPM)
Planning & International Cooperation Department
Ministry of Energy and Mineral Resources

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The Hashemite Kingdom of Jordan

Jordan’s the official name is The Hashemite kingdom of Jordan

Where is Jordan?
Jordan is located in the Middle East and borders Syria, Saudi Arabia, the Red Sea, Palestine, Israel, and Iraq. Covering some 89,342 sq.km, it is located at 31° 00 N, 36° 00 E

Climate and Geography
Jordan has a combination of Mediterranean and arid desert climates, with Mediterranean prevailing in the North and West of the country, while the majority of the country is desert.
Lowest Point: Dead Sea, -408 meters (-1338.6 feet)
Highest Point: Jebel Rum, 1734 meters (5689 feet)

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• Positioned at the convergence of the three continents of Europe, Asia and Africa.
• Total Population: 10,053 million
• GDP at current price: 28,449 million JD (40,091 million US$)
• GDP per Capita: 2830 JD (3988 US$)
Jordan is considered as a hub and transit country and can play a major role in the region linking:

- Gas Pipelines
- Oil Pipelines
- Electricity networks

The country has a huge potential of:

- Energy resources (oil shale, uranium).

(estimated quantities for oil shale and uranium are about 40 billion tones and 65000 tones respectively)

- Renewable energy utilization (wind, solar).

(solar radiation intensity 5-7 kWh/m² per day, wind speed 7-11 m/s)

Jordan has potential of oil and gas exploration but has not been explored yet.

- Comprehensive legal, legislative and regulatory framework for the energy sector.
Jordan is facing a real challenge in securing its energy supply due to:

- Almost no indigenous energy resources (6%)
- High dependency on imported energy (94% TPES imports in 2017), **140,000 barrels per day.**
- Volatile oil prices (The energy cost amounted in 2017 to 2.429 billion dinars which represented 8.5% of GDP at current prices)
- Continued increase in demand
  - high growth of primary energy demand (5.5% per annual)
  - high growth of electricity generated capacity (5.3% per annual)
- High energy intensity in Jordan (299 oil kg equivalent/1000 dollar)
Ministry of Energy & Mineral Resources (MEMR)

- Established 1984 for:
  - Administering and organizing the energy sector
  - Comprehensive planning process of the sector
  - Setting the general plans and ensuring their implementation

**Vision**

- Achieve a secure sustainable supply of energy and optimal utilization of natural resources.

**Mission**

- Setting and developing the appropriate policies and legislations to achieve a secure sustainable supply of energy and the optimum utilization of natural resources which complies with international best practices.
MEMR Energy Facts & Figures

• Published annually
• Prepared by Statistics & Info Unit with other technical units in MEMR.
• Contains Economic figures along with Energy Balance

All available on MEMR website: Ministry's Brochures: http://memr.gov.jo/Pages/viewpage.aspx?pageID=175
Energy Information System

http://eis.memr.gov.jo

- EIS includes 6 categories of statistical data, as follows:
  1. **Macroeconomic** - Population, GDP, value added, CO2 emissions.
  2. **Energy** - Energy balance, primary energy supply, final energy consumption, energy cost.
  3. **Electricity** - Generation, capacity, consumption, supply, efficiency, purchases, sales, tariff, imports, exports, transmission.
  4. **Oil** - Production, consumption, sales, imports, storage capacity, stocks, prices.
  5. **Natural Gas** - Production, import, consumption.
  6. **Renewables** - Installed capacity, generation share, distribution.

And Mineral resources Data like Geological Maps....

Established in MEMR in 2016 and currently been transferred to EMRC as stated in its Law 8/2017 article 17

المادة 17 - على الهيئة انشاء نظام المعلومات الوطني للقطاع يتألف من قاعدة بيانات مركزية متكاملة قائم على استخدام تقنيات المعلومات الحديثة ويشتمل على نشاطات القطاعات المختلفة والسوق الأساسية والاحصاءات المتعلقة بعمل القطاع في المملكة. و مراجع المعلومات العالمية لاستخدامها قانون تحظي استراتيجي للحكومة والأطراف المعنية، وللعلم الجمهور دورياً بوضع القطاع.
Collecting Data

- Currently there is no specific legislation underpinning the monthly oil data collection.
- In the absence of legislation, MEMR team collect data from the companies without any interruption.
- MEMR collects these types of data:
  - monthly and yearly data from the related companies and then processed & used in completing the energy balance and annual reports usually during the first quarter of each year.
  - Other data from surveys which belongs to the energy consumption in all sectors: households, industry, agriculture, transportation, etc.
- Data collection Methodology includes formal MEMR letters, by phone and email.
Communication with data provider

- MEMR has a good relation with all companies and other institutions in the sector, so the data which comes from these providers covers all MEMR needs.

- If we notice any mistakes or suspicious numbers, we contact the data provider to verify them, also we conduct regular meetings.
Data Processing

- The data which was collected is entered and stored as a database, then we do many processes on it:
  - In case of energy balance we convert the data to (TOE) by using IEA conversion factors.
  - In case of surveys we analyze the data by (SPSS) programs to achieve our goals from the surveys.
- All these tasks were done by computers, which makes it very easy to notice errors especially in the energy balance.
Local Surveys  (Arabic only)

http://memr.gov.jo/Pages/viewpage.aspx?pageID=130
International Surveys

- Data is provided from the Statistics & Info Unit through special forms & online surveys to the following international organizations:
  - OECD
  - World Bank
  - IEA
  - World Energy Council
Other stakeholders in the field

- Department of Statistics (DOS)
- Central Bank of Jordan
- Ministry of Finance
- Ministry of Planning & International Cooperation
Energy Sector Institutes other than MEMR
Institution of the Energy Sector

- Energy & Minerals Regulatory Commission (EMRC)

Electricity Sector:

- National Electric Power Company (NEPCO)
- Central Electricity Generating Company (CEGCO)
- Samra Electric Power Generator Company (SEPGCO)
- Electricity Distribution Companies
  * Jordan Electric Power Company (JEPCO)
  * Irbid District Electricity Company (IDECO)
  * Electricity Distribution Company (EDCO)

- Petroleum, gas, and mineral institution
  - National Petroleum Company (NPC)
  - Jordan Petroleum Refinery Company (JPRC)

Other Institutions

- National Energy Research Centre (NERC)
- Jordanian Nuclear Energy Commission
Example: Petroleum products Sector structure

Policies & general Control & Pricing
Ministry of Energy & Mineral Resources

Regulate the sector & Monitoring & Issuing Licenses
Energy and Minerals Regulatory Commission (EMRC)

Providing Strategic Reserve & Handling Petroleum products
Jordan Petroleum Refinery Company

Marketing companies buy products from JPRC & global market (Diesel & gasoline only)

OMCs: Marketing companies supply products to wholesale and to large industrial customers. Marketing companies also own retail stations

End User

Gas Stations
Manaseer
Jopetrol
OMC 4, 5..

JOTC 

Global Market

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Ms. Arwa AbuKashef (Eng, REP, MPM)
International Cooperation Division

Planning & Int. Cooperation Dept.
Ministry of Energy and Mineral Resources
The Hashmite Kingdom of Jordan
Tel: +962 6 5803060 ext. 1446
Fax: +962 6 5865714
Cellphone: +962 (0)777621024
P.O. Box 140027, Amman 11814-Jordan
Arwa@memr.gov.jo
www.memr.gov.jo