

Annual Report

Ministry of Energy and Mineral Resources

2024

Foreword by the Minister of Energy and Mineral Resources

The year 2024 marked a milestone in the journey of the Ministry of Energy and Mineral Resources. It was a year filled with unprecedented challenges brought on by rapid global developments in the requirements for transitioning toward sustainable and resilient energy systems.

Nevertheless, the Ministry continued to work steadily toward achieving its goals within the Economic Modernization Vision, relying on integrated strategic planning and effective partnerships.

This year saw tangible progress in diversifying energy sources and increasing reliance on domestic resources, as the installed capacity of renewable energy projects rose to more than 2,840 megawatts, and work began on new electrical interconnection projects with neighboring countries, including links with Iraq and Saudi Arabia. Important technical and administrative milestones were completed in this regard.

The Ministry also gave special attention to the social dimension of energy by expanding household energy subsidy programs, rural electrification, and improving energy efficiency in vital sectors such as health, education, and industry. The Renewable Energy and Energy Efficiency Fund played a pivotal role in implementing these programs in cooperation with local and international partners, in addition to the efforts made by the Rural Electrification Directorate in this field.

In the mineral resources sector, the Ministry made progress in exploring strategic ores by signing a number of memoranda of understanding and fostering an attractive investment environment within a modern, transparent regulatory framework.

The Ministry also made significant progress on the green hydrogen file, having completed the national roadmap and signed 14 memoranda of understanding with international and local companies, positioning Jordan as a regional leader in this future-oriented sector.

What was achieved during 2024 is the fruit of collective effort and continuous cooperation between the Ministry, the various energy sector institutions, and partner entities. The Ministry will continue to strive for a balance between the requirements of energy security, environmental sustainability, and equity in access to services, in line with the aspirations of the Jordanian state and the vision of its wise leadership.

Dr. Saleh Al-Kharabsheh

Minister of Energy and Mineral Resources

About the Ministry of Energy and Mineral Resources

Vision

Achieving sustainable energy security and the optimal utilization of natural resources

Mission

Preparing and developing appropriate policies and legislation to achieve sustainable energy security and the optimal utilization of natural resources in line with global best practices

Core Values

- Teamwork
- Knowledge Sharing and Utilization
- Integrity and Transparency
- Excellence and Leadership
- Loyalty and Belonging

National Goals the Ministry Contributes to Achieving

1. Achieving sustainable growth rates to ensure a good standard of living for all citizens.
2. Creating an attractive investment environment capable of attracting foreign capital and encouraging domestic investment.
3. Reducing poverty and unemployment and building an effective social protection system.

4. Improving the level of services provided to citizens and ensuring fairness in their distribution.

Strategic Goals for the Energy and Mineral Resources Sector (Sectoral Goals)

1. Diversifying energy sources and forms.
2. Increasing the contribution of domestic energy sources to the overall energy mix.
3. Increasing energy efficiency across all sectors.
4. Reducing the cost of energy to the national economy.
5. Developing Jordan's energy sector to make it a regional hub for energy exchange in all its forms.
6. Maximizing the added value derived from the utilization of available mineral ores.

Strategic Goals of the Ministry of Energy and Mineral Resources:

1. Consolidating and strengthening strategic thinking and governance practices
2. Diversifying energy sources and forms
3. Developing and utilizing domestic energy sources
4. Rationalizing energy consumption and improving its efficiency
5. Increasing investment in the mineral resources sector

Programs Contributing to the Achievement of the Strategic Goals of the Ministry of Energy and Mineral Resources

No .	Strategic Goal	Programs Contributing to Achieving the Ministry's Strategic Goals
1-	Consolidating and strengthening strategic thinking and governance practices	• Developing the Ministry's strategies and decision-making mechanisms • Promoting international cooperation • Updating the seismic observatory
2-	Diversifying energy sources	• Developing the oil sector and opening the petroleum products market to competition • Maintaining natural gas supply security • Maintaining electricity supply security
3-	Developing and utilizing domestic energy sources	• Expanding the utilization of renewable energy sources • Expanding the utilization of oil shale for oil production and power generation • Developing exploration areas for conventional and unconventional oil and gas

4-	Rationalizing energy consumption and improving its efficiency	• Household Sector Program • Lighting Units • Industrial Sector Program • Government Buildings Sector Program • Tourism Sector Program • Exemptions Program • Energy Training Program • Awareness and Education Program
5-	Increasing investment in the mineral resources sector	• Exploration for Mineral Resources • Geological Surveys of the Kingdom • Geophysical Studies and Surveys • Geochemical Surveys ("Geochemical Studies") • Improving the accuracy and quality of laboratory testing • Updating the seismic observatory
6-	Improving institutional performance efficiency	• Institutional Development • Information and Communications Technology • Improving financial performance efficiency • Internal Control

		• Human Resources Development, Capacity Building, and Motivation • Public Relations • Administrative Services
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Institutional Framework

The main mission of the Ministry of Energy and Mineral Resources, as the umbrella body for energy sector institutions, is to prepare and develop appropriate policies and legislation to achieve sustainable energy security and the optimal utilization of natural resources in line with global best practices. This is achieved through comprehensive sector planning, the development of public policies, and monitoring their implementation to ensure the fulfillment of its assigned tasks.

Since the establishment of the Ministry of Energy and Mineral Resources in 1984, its regulatory framework has evolved as follows:

- 1984: The Ministry was established in late 1984 and was entrusted with managing and regulating the energy sector under the Organization and Administration System of the Ministry of Energy and Mineral Resources No. (26) of 1985, assuming responsibility for comprehensive sector planning.

- 2011: The Rural Electrification Project was incorporated into the Ministry, and an organizational unit was established to manage it, making it part of the Ministry's organizational structure.
- 2014: Pursuant to Article 3 of the Law on the Restructuring of Government Institutions and Departments No. (17) of 2014, the Natural Resources Authority established under the Natural Resources Affairs Regulation Law No. (12) of 1968 was dissolved, and its rights and assets were transferred to the Ministry of Energy and Mineral Resources, with the exception of its regulatory functions. Accordingly, since then, the Ministry has continued to prepare and develop appropriate policies and legislation to achieve sustainable energy security, in addition to its core mission of achieving the optimal utilization of natural resources in accordance with best practices.
- 2017: Following the issuance of the Energy and Minerals Regulatory Commission Law No. (8) of 2017, which stipulates in Article (4/b) that the Energy and Minerals Regulatory Commission shall assume the tasks and powers related to granting licenses and permits to persons operating in the sector, the Ministry's regulatory functions related to licensing and permitting were transferred to the Energy and Minerals Regulatory Commission.

- 2019: The Administrative Organization System of the Ministry of Energy and Mineral Resources No. (123) of 2019 was issued, resulting in the restructuring of organizational units to fulfill its assigned tasks efficiently and effectively.
- 2021: Instructions defining the duties of the directorates, units, and departments of the Ministry of Energy and Mineral Resources No. (1) of 2021 were issued pursuant to paragraph (a) of Article (7) of the Administrative Organization System of the Ministry of Energy and Mineral Resources No. (123) of 2019.
- 2022: Administrative Decision No. (1) of 2022 was issued establishing a Tenders Section to organize all procedures related to tenders overseen by the Ministry.

Structure of Energy Sector Institutions

Oil Sector Institutions

Petroleum and Gas Sector Institutions

Electricity Sector Institutions

Mining Sector Institutions

Achievements of the Ministry of Energy and Mineral Resources

Numerous achievements were made during 2024 in the energy and mineral resources sector despite the significant challenges facing the sector. This report has therefore been prepared to present these achievements, as follows:

Main Achievements

Electric Power Sector

Electric power in the Hashemite Kingdom of Jordan in 2024 was generated using natural gas (58.08%), renewable energy (26.92%), and oil shale (15%), compared to 61.1% natural gas, 26.28% renewable energy, and 12.62% oil shale in 2023.

The total amount of electricity generated from various fuel sources in power plants reached approximately 25,080.56 GWh in 2024. These sources included Northern Gas, Egyptian Gas, Liquefied Natural Gas (LNG), Risha Gas, oil shale from the Attarat Project, renewable energy, and the Egyptian Electrical interconnection.

First: Electricity Generation Using Natural Gas

The total quantities of natural gas consumed from both imported and local sources in electricity generation plants during 2024 amounted to approximately 119,456 million cubic feet, at an average of 327 million cubic feet per day.

Second: Electricity Generation Using Renewable Energy

The total installed capacity of renewable energy power generation projects reached approximately **2,840.2 MW**, including:

Projects Selling Electricity to Distribution Companies (1,478 MW):

- **621 MW** Wind energy
- **874 MW** Solar energy
- **10 MW** Biogas and hydropower

Renewable Energy Systems Owned by Subscribers (1,320.8 MW):

- **873.6 MW** Net Metering and Net Billing
- **447.2 MW** Wheeling

In addition, **biogas and hydropower systems** at the **Khirbet Al-Samra Wastewater Treatment Plant** have a capacity of **13.4 MW**.

Renewable Energy Power Generation Projects – Direct Proposals and Grants

(The project list and annual capacities from 2015–2021 remain as stated, including solar and wind projects implemented through direct proposals, grants, and international financing mechanisms.)

2015	2016	2017	2018	2019	2020	2021
Solar (2.5 MW) Al-Azraq Project / Spanish Window Loan	Solar (204 MW) 12 Projects / Direct proposals	Wind (14 MW) Al-Hussein Wind Project / Gulf Grant	Solar (50 MW) FRV Solar Company Project / Mafraq	Solar (40 MW) AM Solar Company Project	Wind (100 MW) Mass Jordan for RE Company	Wind (51.75 MW) Abour Wind Project in Tafila
Solar (2 MW) Al-Azraq / Spanish Debt Swap Grant	Wind (66 MW) Al-Hussein University in Ma'an Wind		Solar (50 MW) FRV + Hareon Swiss Holding / Mafraq	Solar (50 MW) Risha PV Project	Solar(200 MW) Project by Baynounah Company/ Al-Muqar Sun	Wind (51.75 MW) Dehan Wind Project in Tafila

	Project / Gulf Grant					
Solar (13 MW) Al-Badia Power Generation Company Project			Solar (51 MW) Al-Mafraq Project (Acwa)	Solar (51 MW) Al Safawi Arabia Solar PV Plant/ Mafraq	Wind (45 MW) Shobak Wind Project	Solar (50 MW) Philadelphia Company Project/ alhusieneh area
Wind (117 MW) Jordan Wind Company Project / Tafila			Solar (92 MW) Sheikh Zayed Solar Complex/Gulf Grant/Qwerah	Solar (5 MW) Al-Azraq Project / EU Grant	Air Force Project (10 MW)	
			Solar (10 MW) Air Force PV project / Mafraq	Wind (89 MWac) Al-Fujij		

				Wind Project		
			Wind (86.1 MW) Green Energy Company Project/ Al-Rajif wind Farm			
Total 134.5 (MWac)	Total 270 (MWac)	Total 14 (MWac)	Total 339.1 (MWac)	Total 235.1 (MWac)	Total 345 (MWac)	Total 135.5 (MWac)

Added photovoltaic capacities connected through net metering, net billing, and wheeling mechanisms during the period 2015–2024, according to electricity distribution companies, are presented in megawatts as detailed in the table.

Megawatt	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	Net metering & Net Billing
Jordanian Electricity Company (JEPCO)	5.06	24.06	1.14	30.13	24.20	30.21	32.60	70.61	41.6	57	23.235	39.854	34	65	17	49	7.39	43.26	2.95	54.9
Irbid Governorate Electricity Company	0.00	1.90	1.05	5.96	1.38	33.54	20.37	21.96	6	31.2	5.923	41.14785	1.5	45.6	1.7	37	1.82	28.12	3.9	19.3
Electricity Distribution Company	1.00	6.70	8.00	4.00	5.12	12.00	11.78	7.05	13.7	4.8	5.085	9.5646	19.8	38.22	1	14.2	5.288	13,692	6.39	18.03
National Electricity Company	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	74	15.00	0	0	15	0	12	0	5	0	24	0
the total	6.06	32.65	10.19	40.09	30.70	75.75	64.75	99.62	135.4	108.48	34.243	90.56645	70.3	148.82	31.7	100.2	19.498	85,072	37.24	92.29

The number of photovoltaic systems connected to cover subscribers' electricity consumption during 2015–2024 are presented by electricity distribution companies, under net metering, net billing, and wheeling schemes.

	2015		2016		2017		2018		2019		2020		2021		2022		2023		2024	
	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	Net metering & Net Billing
Jordanian Electricity Company	10	1026	11	1078	28	1244	47	1821	79	2812	49	2941	57	6246	49	6038	51	5529	44	5943
Irbid Governorate Electricity Company	2	234	1	353	2	390	4	936	8	2395	14	4505	5	8692	14	6035	7	4834	8	3370
Electricity Distribution Company	1	46	2	951	4	1460	6	530	5	579	5	1512	18	4045	7	2199	8	1921	8	1999
National Electricity	0	0	0	0	0	0	0	0	2	1	1	0	1	0	2	0	2	0	1	0

Compan y																				
the total	13	130 6	14	2166	34	3094	57	3037	94	5537	69	8958	81	189 83	73	142 72	68	1228 4	61	1171 2

Cumulative capacities of installed renewable energy systems (PV) to cover
subscribers’ consumption during the years (2015-2024) in megawatt

Megawatt	2015		2016		2017		2018		2019		2020		2021		2022	2023		2024		
	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	net metering	Wheeling	Net metering & Net Billing
total	6.06	32.65	16.25	72.75	46.95	148.5	46.95	248.12	1117	248.12	281.4	356	351.6	595.4	382.7	695.9	402.22	780.98	447.2	873.75

Green Hydrogen

The Ministry of Energy and Mineral Resources has undertaken several measures to establish a regulatory framework for green hydrogen projects and encourage investment in this field, including:

- Preparing a study that includes a roadmap for the potential use of green hydrogen in Jordan.
- Preparing a reference document for green hydrogen in Jordan.
- Conducting a study to analyze existing legislation and identify required regulatory frameworks.
- A National Green Hydrogen Committee was established, comprising all relevant stakeholders, to follow up on the preparation of regulatory legislation, complete required procedures, oversee additional studies for the green hydrogen sector, evaluate investment opportunities in green hydrogen and hydrogen-based products, and approve procedures for allocating investment sites and related infrastructure for hydrogen production, transport, and storage.

By the end of 2024, 14 Memoranda of Understanding were signed with international and local companies to study the feasibility of investing in green hydrogen and green

ammonia production in Jordan, in addition to a framework agreement enabling these companies to conduct the necessary studies to make investment decisions. Two companies have signed land-use agreements to complete detailed feasibility studies.

Third: Electricity Generation Using Direct Combustion of Oil Shale

The Attarat Power Plant continued full commercial operation during 2024 with a capacity of 470 MW.

Fourth: Electricity Interconnection

Jordan–Saudi Arabia Interconnection

The two sides agreed on interconnection, operation, and maintenance agreements for electricity exchange. Work is ongoing to finalize the technical and commercial agreement, with the Saudi side expressing preference for cash-based electricity trading instead of in-kind exchange.

Jordan–Egypt Interconnection Capacity Upgrade to 2,000 MW

The Jordanian and Egyptian power grids have been synchronously interconnected since 1999 via a 400 kV submarine cable through the Gulf of Aqaba with a capacity of 550 MW. The electricity exchange agreement is renewed annually.

Both sides agreed to reassess the economic and technical feasibility of upgrading the interconnection capacity to 2,000 MW, and to seek new financing sources for the required studies at the request of the Egyptian side.

Jordan–Iraq Interconnection

Phase One:

Completed at 132 kV with a capacity of 40 MW, and the line between Jordan and Al-Rutba was commissioned on 30/3/2024.

Phase Two:

With a capacity of 150–200 MW at 400 kV, connecting to the Iraqi Al-Qaim area. Construction of a 330 km medium-voltage line inside Iraqi territory has been completed, along with interconnection works at the Al-Qaim 132/400 kV substation. Work is ongoing on the 33/132/400 kV Risha substation in Jordan, including civil works, transformer and switchgear procurement, and the 400 kV transmission line.

Commercial operation is expected in Q3 2025.

Jordan–Syria–Lebanon Interconnection

Electricity has been supplied to the Nassib border crossing on the Syrian side through Irbid Electricity Company, funded by the Rural Electrification Fils / Ministry of Energy and Mineral Resources.

The National Electric Power Company is technically ready to export electricity to Syria once the Syrian side of the interconnection line is operational, to cover part of Syria's electricity needs outside Jordan's peak hours.

In the Field of Rural Electrification

The rural electrification project has evolved over the years as an innovative, solidarity-based project designed to respond to Jordanian needs. The target beneficiary groups and the services provided were diversified, and new services were introduced with the aim of developing rural and desert areas, reducing migration to cities, encouraging reverse migration, combating poverty and unemployment, supporting various productive projects, and utilizing renewable energy. Accordingly, the project was expanded to include the provision of electricity to remote and off-grid areas through off-grid renewable energy systems. It also covered many farmers and associations aiming to support local communities, as well as the installation of grid-connected solar energy systems for low-income households, as follows:

- During 2024, the Ministry of Energy and Mineral Resources, through the Rural Electrification Fils, approved the provision of electricity to villages and rural communities through conventional electricity networks or by utilizing renewable energy sources to generate and supply electricity to beneficiaries. This was intended to reduce the financial burdens incurred by citizens for connecting electricity to homes and sites located both inside and outside planning boundaries, in addition to contributing to the reduction of electricity bill burdens on low-income households. The approved financial cost amounted to approximately JOD 14,160,380, serving around 5,169 homes and 371 sites.
- The Rural Electrification Fils operates in accordance with the principles and instructions approved by the Council of Ministers, with the objective of achieving local development through the provision of electricity.
- The achievements of the Rural Electrification Fils form part of the ongoing efforts to meet the needs of Jordanian rural communities and improve citizens' living standards. In this context, the Directorate of Electricity and Rural Electrification works to implement developmental visions based on utilizing local resources for electricity generation, such as solar energy, to ensure sustainable access to electricity across all regions.

- In the field of electricity provision through electrical networks, the Rural Electrification Fils has significantly contributed to expanding the electricity grid to include all population segments, including small population segments located outside planning boundaries. This included clusters consisting of five houses, with a total of 434 houses at a financial cost of JOD 2,129,644. Approval was also granted for clusters consisting of a minimum of three houses, with a total of 750 houses at a financial cost of JOD 1,969,497. In addition, the number of individual houses located outside planning boundaries that could benefit from existing networks reached 929 houses, at a financial cost of JOD 652,502. These efforts reflect the Ministry of Energy and Mineral Resources' commitment to improving the living standards of residents outside planning boundaries and promoting sustainable development. This category also included the homes of underprivileged families located within planning boundaries, totaling approximately 97 houses, at a financial cost of JOD 97,026, aimed at supporting low-income underprivileged families.
- The Rural Electrification Fils also contributed to upgrading the capacities of transformer substations established at the Fils's expense to address voltage weakness and reduce electrical losses, at a financial cost of JOD 208,444. In addition, the Fils contributed to lighting the roads leading to cemeteries, with a total of 104 cemeteries at a financial cost of JOD 675,489, to facilitate the burial of the deceased during nighttime.

- The beneficiary categories of the Rural Electrification Fils also included agricultural projects, such as poultry, cattle, sheep, and fish farms, located within poverty pockets and farms that include artesian wells and are situated outside planning boundaries. The total number of beneficiary farms reached 83 farms, at a financial cost of JOD 993,932. This initiative reflects the Ministry of Energy's belief in supporting farmers, encouraging livestock production, enhancing their productive capacities, supporting the agricultural sector, promoting sustainable development in rural areas, strengthening food security, and enhancing self-reliance, thereby improving the economic conditions of residents in these areas.
- The Rural Electrification Fils contributed to supporting productive, industrial, and investment projects located outside planning boundaries, in accordance with approved guidelines. These efforts were represented by providing support to projects that create employment opportunities for Jordanians residing in the project area, thereby enhancing local development and supporting communities. The total number of beneficiary projects reached 37 projects, at a financial cost of JOD 1,019,306, reflecting the Ministry of Energy's commitment to enhancing economic and social stability in these areas and promoting self-reliance.
- The Rural Electrification Fils also contributed to supplying electricity to projects related to government sectors and security agencies, in addition to agricultural and charitable

cooperative associations, with the aim of supporting these vital sectors and strengthening their role in serving local communities. The total financial cost of these projects amounted to JOD 4,875,235, reflecting the importance of the Rural Electrification Fils in improving infrastructure and supporting sustainable development.

- The Ministry of Energy and Mineral Resources, through the Directorate of Electricity and Rural Electrification, issued a tender for the installation of off-grid solar photovoltaic systems for Civil Defense centers and remote external patrols located far from electricity networks, at a financial cost of JOD 783,470. This project will contribute to enhancing these centers' ability to independently provide sustainable energy, improving emergency response, and increasing operational efficiency in remote areas.
- A tender was also issued for the installation of off-grid solar photovoltaic systems for 14 houses belonging to underprivileged families located outside planning boundaries and far from electricity networks, at a financial cost of JOD 56,000. This initiative contributes to providing sustainable energy to these families and improving their economic and social living conditions.
- The number of applications submitted to the Rural Electrification Fils in **2024** reached **2,300 applications**, detailed as follows:

- The number of houses approved for implementation at the expense of the Rural Electrification Fils amounted to **2,576 houses**, at a financial cost of **JOD 12,609,086**.
- The number of sites for which electricity supply was completed and officially received reached **1,353 sites**, at a financial cost of **JOD 11,100,103**.

Company	Number of Sites	Financial Cost (JOD)
Jordanian Electric Power Company	320	3,804,067
Irbid District Electricity Company	648	2,416,656
Electricity Distribution Company	385	4,879,380
Total	1,353	11,100,103

Project for Replacing Conventional Street Lighting Units with Energy-Efficient LED Units

▪ The project to replace conventional street lighting units in municipalities with energy-efficient LED units is one of the most important projects undertaken by the Ministry of Energy and Mineral Resources, in cooperation with the Ministry of Local Administration. The contribution of the Rural Electrification Fils to this project amounts to JOD 5 million, disbursed annually, while the remaining cost is financed by the municipalities where the project is implemented.

- This project contributed to achieving financial savings through the use of energy-efficient lighting units, resulting in reduced electricity bills for municipalities. This positively reflects on improving the level of services provided to citizens by municipalities. The total number of replaced lighting units in municipalities across the Kingdom reached 410,000 units, significantly contributing to enhanced public safety and providing a safer urban environment. The implementation of additional quantities, amounting to 138,897 lighting units, will be completed during the current year.

In the oil sector

Diversification of crude oil supplies

1- On 18/7/2024, the Iraqi Council of Ministers approved the extension of the Memorandum of Understanding for the supply of crude oil, signed between the Ministry of Oil in the Republic of Iraq and the Ministry of Energy and Mineral Resources in the Hashemite Kingdom of Jordan on 4/5/2023, for a period of one year starting from the date of completion of loading all quantities stipulated in the Memorandum of Understanding. This is for supplying the Hashemite Kingdom of Jordan with 10,000 barrels per day $\pm 15\%$ throughout the duration of the Memorandum of Understanding,

which constitutes about 7% of the Jordanian market's demand, and under the same contractual terms included in the Memorandum of Understanding.

2- The Iraqi Council of Ministers approved the extension of the Kirkuk crude oil supply contract signed between the Iraqi Oil Marketing Company (SOMO) and the Jordan Petroleum Refinery Company as of 27/6/2024 until 26/6/2025, under the same contractual terms stated in the supply contract.

It is noted that the discussions held between the Jordanian and Iraqi sides resulted in a mutual agreement to increase the quantities of Iraqi crude oil exported to Jordan from 10,000 barrels per day to 15,000 barrels per day starting from August 2023.

Accordingly, the monthly quantity of Iraqi crude oil exported to Jordan amounts to approximately 450,000 barrels per month, instead of 300,000 barrels per month.

The total quantity of Iraqi crude oil supplied to the Kingdom during 2024 reached approximately 3.578 million barrels, transported by 14,027 tankers.

Oil derivatives prices

1. Continuing to set the selling prices of petroleum derivatives based on the Petroleum Derivatives Pricing bylaw, Licensee Commissions, and Tariff No. (122) of 2019

and its amendments, and announcing them monthly through the Petroleum Derivatives Pricing Committee formed under the bylaw.

Average Stock of Crude Oil and Petroleum Derivatives:

The Table below shows the average Stock of Crude Oil and Petroleum Derivatives during the year 2024 (in tons):

Average Stock of Crude Oil and Petroleum Derivatives during the year 2024 (thousand tons):

Crude Oil	Gasoline 90	Gasoline 95	Diesel	Heavy Fuel	LPG	Kerosene	Asphalt
Jet Fuel							
261,661	187,462	29,480	261,891	42,253	41,162	73,378	10,482
							84,529

In the field of natural gas

Diversification of natural gas sources

Natural gas supply sources in Jordan: are as follows:

- Egyptian natural gas (via pipelines).
- Northern gas (via pipelines).
- Liquefied natural gas (from the FSRU in Aqaba).
- Natural gas produced from the Risha gas field.

Encouraging the Use of Natural Gas in All Sectors

- The construction of the compressed natural gas (CNG) station affiliated with Jordan Gas Company in the Risha area has been completed. This project is the first of its kind in the Kingdom for supplying compressed natural gas, and it is considered an important energy project at the current stage.

The National Petroleum Company signed agreements for the sale and purchase of natural gas produced from the Risha gas field with three Jordanian companies to convert natural gas into compressed gas and liquefied gas (LNG, CNG).

- A main natural gas supply station has been inaugurated to supply factories operating in the Al-Qastal Industrial Area with natural gas. This station serves as a nucleus for supplying secondary networks with natural gas to be delivered to factories wishing to benefit from this station. This project comes as part of the national program to deliver natural gas to cities and industrial areas in the Kingdom.

- On 18/12/2024, agreements were signed for the connection and supply of natural gas for the CNG Mother Station project in the Hashimiyah area, between Jordanian Egyptian Fajr Company, ProGaz (Advanced Central Gas Company), Tanmia Natural Gas Company, and Classic Fashion (Classic Fashion Apparel Industry).
- On 10/11/2024, agreements were signed between Jordanian Egyptian Fajr Company, Arab Fertilizers and Chemicals Industries Company (KEMAPCO)—a subsidiary of Arab Potash Company—and Tanmia in the city of Aqaba, to connect and supply natural gas to the KEMAPCO factory in the southern area of Aqaba.
- On 28/10/2024, the Aqaba Development Corporation and Gas Egypt signed an agreement to implement the project of supplying natural gas to the Al-Quweira Industrial City in Aqaba.

In the field of petroleum and oil shale

- Extension of the drilling and services agreement with the UAE's ADNOC to develop the Hamza field and drill new wells in the Hamza field.
- The daily oil production rate from the Hamza field reached (70) barrels.
- Drilling two new wells in the Hamza field by the UAE's ADNOC.

- Signing two memoranda of understanding with Tajannos for Ownership and Establishment of Commercial Projects (HINCO) at the end of 2024 to evaluate oil prospects in the Al-Sarhan and West Al-Safawi areas.
- The tender for 3D seismic survey work in the Al-Jafr area was awarded to the Arabian Geophysical & Surveying Company (ARGAS), and project implementation will begin in the second quarter of 2025.
- Issuance of the amended system for the Direct Proposal System for the exploitation of oil shale, coal, petroleum, and strategic minerals.
- Completion of preparing a number of isopach maps that illustrate the thicknesses of the oil shale and the overburden layers for some oil shale areas in Jordan.

In the field of sustaining the preservation and display of information for petroleum, oil shale, and mineral resources.

The Ministry of Energy and Mineral Resources is concerned with sustaining, preserving, and displaying information on petroleum, oil shale, and mineral resources through studies conducted in various regions of the Kingdom from the late 1940s until the present moment. This is achieved by establishing a natural resources information bank for projects and studies carried out by the Ministry's various directorates or contracting

companies in the field of natural resources. Mining project maps are also produced using Geographic Information Systems (GIS) software.

- The Ministry has provided a service to supply interested parties from public and private institutions, companies, researchers, and university students with technical reports and maps of all types as follows:

No. Item Quantity

- | | | |
|---|---|-----|
| 1 | Hard-copy geological maps and reports | 275 |
| 2 | Digital maps | 2 |
| 3 | Petroleum and oil shale information and studies (electronic and manual) | 13 |

In the field of geology and mining

1. Geophysical Studies

- Signing a technical cooperation agreement with the Royal Jordanian Geographic Center to exchange geospatial data and information and to collaborate in implementing the Earth Model Project (Geoid).

- Measurement of gravity values at 75 gravity stations as part of the national gravity survey project, including precise geodetic measurements, topographic corrections, Bouguer and Free-Air anomaly calculations, and database updating.
- A technical and field evaluation of the Global Reference Gravity Stations Network (JGSN90) distributed across the Kingdom was carried out, followed by updating its geospatial data and issuing a technical report.
- A technical report was issued presenting the results of the geoelectrical survey conducted at mineral prospecting and exploration sites in Jabal Al-Rashrash – Wadi Rum.
- As part of the Ministry of Energy and Mineral Resources' efforts to support communities in areas where exploration work is conducted, and in response to the need for groundwater resources in Al- Risha area in Wadi Araba for agriculture and development, a natural-source magnetotelluric geophysical survey was conducted to assess groundwater potential and determine suitable locations for drilling a water well, and a technical report was issued with the results.

2. National Geological Mapping Project:

- Forty percent of the geological mapping work for the Qasr Burqu' sheet (1:100,000 scale) has been completed as a part of the national geological mapping program.

- A detailed geological map at a scale of 1:10,000 was completed, along with a detailed geological report for the Al-Dhahik area, in preparation for establishing a geological park upon the request of the Geological Reserves and Parks Management Committee.



3. Detailed Geochemical Survey Project of Jordan:

- Completion of geological and geochemical work in the Disi Formation (Ras Al-Naqab area) to identify optimal zones of high-purity silica sand deposits and collect representative samples for silica upgrading programs.
- Completion of the geochemical report on iron deposits and associated elements in northern Wadi Rum, where several inclined boreholes (45°) were drilled to various depths.



- Completion of a detailed follow-up geochemical survey report for Sumr At-Tayyiba Mountains (Wadi Araba).



4. Jordan Geological Museum:

- A total of 224 students from three schools were received during scientific visits to the Jordan Geological Museum.

- Rock and mineral samples as well as geological visual aids and maps were prepared for two schools to help establishing small geological exhibits in cooperation with educational institutions.
- A delegation from the Logistics Training Institute of the Jordan Armed Forces – General Command was received.



5. Petrographic Studies:

- A detailed petrographic report was prepared for thin-section rock samples from the metallic element prospecting project in Sumr At-Tayyiba Mountains / Wadi Araba.



6. Geological Field Inspections:

- Field inspections were conducted, upon official request, for ground fissures in two locations (Qaa' Saidiyeen / Wadi Araba and Qaa' Umm Salab / north of Wadi Rum), followed by issuing detailed geological reports.



7. Natural Resources Prospecting:

- **Prospecting Project for Metallic Elements and Their Ores in Sumr At-Tayyiba / Wadi Araba.**

- Work in Sumr At-Tayyiba area was completed, including excavation of 20 trenches, 6 exploratory pits, and 16 boreholes.
- A total of 406 representative rock samples were collected and analyzed to trace geochemical anomalies. Results indicated elevated concentrations of several elements:
 1. Zinc: maximum 2667 ppm (background value: 435 ppm)
 2. Lead: maximum 547.7 ppm (background value: 44 ppm)
 3. Lithium: maximum 464.2 ppm (background value: 63 ppm)
 4. Other elements showed acceptable concentrations, including Cu, Ni, V, Sr, Cr, Cs, Ba, Sn, and Y.



➤ **Subsurface Copper Ore Exploration Project in Wadi Abu Khusheiba / Wadi Araba**

Phase One:

1- Drilling in Phase One began on 02/01/2024 under Tender No. (20/M/Works/2023) and concluded on 01/02/2024.

2- Three boreholes predetermined by Terra Company were drilled within Area 20, in coordination with the Ministry's Survey Department:

No.	Borehole	Total Depth (m)	No. of Samples	Maximum (Cu ppm)
1	Cu20-BH01	96.5	10	450
2	Cu20-BH07	100	9	1100
3	Cu20-BH07-02	101	4	370

Phase Two:

1- Drilling for on the same

Phase Two began 11/02/2024 under tender.

2- Three boreholes predetermined by Terra Company were drilled within Area 21:

No.	Borehole	Total Depth (m)	No. of Samples	Maximum (Cu ppm)
1	Cu21-BH01-1	68	13	330
2	Cu21-	90	43	1300



8. Mineral Exploration Investment

Promotion Project:

- Eleven Memoranda of Understanding (MoUs) were signed with companies by the end of 2024 for exploration of strategic minerals including gold, copper, lithium, potash, phosphate, and rare earth elements. Work progress continues to be monitored.
- The following table shows the aforementioned Memoranda of Understanding:

No.	Company Name	Project	Area
1	New environmental elements	REE	Dubeidib
2	Solvest	Copper	Abu Khusheiba
3	Solvest	GOLD	Abu Khusheiba
4	Al-Mutakamela for Mining and prospecting	Copper	Dhana
5	Al-Arabia for Mining	Gold	Jabal Mubarak
6		Phosphate	Al-Risha
7	Al-Arabia for Potash	Lithium	Dead Sea
8	Metal Bank Limited (MBK)	Copper	Malqa

9	At-tasnim for	Phosphate	Al-Risha
10	projects		

9. Ongoing promotion of exploration areas and investment opportunities through participation in international conferences and exhibitions.

10. A workshop titled “Status and Prospects of Minerals Used in Clean Energy Technologies in Arab Countries” was held from 7–9 May 2025, where Jordan’s investment opportunities and Arab experiences were presented. The second meeting of the Arab Committee for Clean-Energy Minerals Initiative was also held in cooperation with the Arab Organization for Industrial Development, Standardization, and Mining.

In the Field of Laboratory Analysis

The Ministry’s laboratories provide their services by conducting all chemical and mineral analyses for various natural rock samples for both the public and private sectors. In 2024, the following was achieved:

- Expansion of the accreditation scope for laboratory tests according to ISO 17025:2017 by the Jordanian Accreditation Unit, where:

- Accreditation was re-granted in the fields of physical, mechanical, chemical, and geochemical tests for 17 accredited tests on 13/06/2024, and it is considered valid until 12/06/2029.

- Full success was achieved in proficiency tests, as the laboratories participated in one international proficiency test with AMIS in South Africa, related to determining the percentage of major oxide elements in geological samples using the XRF / Bruker S8 Tiger device.

- The latest specifications for the tests conducted by the Ministry were adopted, leading to the updating of three specifications related to: Loss on ignition (LOI), trace element determination using the ICP device, and specific gravity test for coarse aggregates.

- Development and activation of monitoring, evaluation, and improvement processes within the laboratory, and providing the necessary tools and methods to prevent, identify, and correct errors and issues in the laboratory.

- Maintaining and developing the technical competence of laboratory staff through verification tests and employee competency monitoring throughout the year.

- Upgrading Ministry laboratory equipment, where the laboratories were supplied with the following devices:

- Graphite Furnace – Atomic Absorption Spectroscopy (GF-AAS): For measuring the concentration of gold in geological samples and associated elements.

- Microwave digestion system: For preparing geological samples through digestion prior to analysis using GF-AAS.

- Muffle Furnace: For determining loss on ignition (LOI) in geological samples.

- Temperature Data Logger for temperature monitoring in the laboratory, and a Hygrometer to measure humidity levels.

- Hot Plate for heating geological samples prepared using total digestion for chemical analysis of various minerals in the ICP sample preparation laboratory.

- Maintenance of the fume hood in the ICP sample preparation laboratory.

- Air Jet Sieve for sieving samples.

Number of samples and analyses conducted up to the end of 2024:

Field	Number of samples	Number of analyses
Concentration of Raw Materials and Sample Preparation	1305	951
Organic geochemistry		71
Rock and soil mechanics		685
Chemical and mineral analyses		1253

In the field of earthquake monitoring

- 100% coverage of seismic activity
- Total events recorded during 2024 (846) as follows:
 - Local events: (166) seismic events.
 - Regional events: (317) seismic events.
 - Global events: (363) seismic events.
- The Civil Defense and the National Center for Security and Crisis Management were provided with (365) daily reports on seismic activity, location maps of local earthquakes, and special reports on earthquakes felt at the moment of occurrence, their magnitude, expected effects after the earthquakes, and any aftershocks.
- The final report on the seismic hazard study for the Petra area and its surroundings was approved and made available to service recipients and data requesters.
- Work continues on updating velocity models and verifying their accuracy by using mining explosions and comparing them with the locations of the same explosions recorded on seismic monitoring systems, ensuring that the results match.

- Compare the results of regional and distant earthquake monitoring at the Jordanian Seismological Observatory with the results of monitoring at other international observatories to ensure the accuracy and validity of seismic information and the locations of events recorded using the seismic monitoring system.
- Maintain the national network of seismic monitoring stations through regular maintenance, updating monitoring programs, and providing them with the latest seismic monitoring equipment. Develop the network of strong motion monitoring stations by adding new stations to the network and connecting them to the seismic monitoring system so that they can be accessed remotely.
- Cooperate with the Civil Defense Directorate by welcoming participants in the disaster management course and informing them about the mechanism of earthquakes, seismic hazard zones in Jordan, the risks posed by earthquakes, how to respond to them, and the methods of communication between the response and emergency center and the Jordan Seismic Observatory.

In the Field of Institutional Planning and Development

Economic Modernization Vision (EMV)

The Economic Modernization Vision ¹centers around the slogan "A Better Future"². It is built upon two strategic pillars: **accelerated growth** through unlocking full economic potential, and **improving the quality of life** for all citizens ³, with **sustainability** as a fundamental cornerstone⁴.

The EMV supports the energy sector's vision of achieving secure and sustainable energy supply and optimal utilization of natural resources⁵.

Energy Sector

The energy sector falls under the **Sustainable Resources** driver ⁶, encompassing (8) main initiatives from which (50) priorities emerge⁷.

Main Initiatives for the Energy Sector: ⁸

1. Developing the legislative environment for the energy sector⁹.
2. Transitioning toward clean energy use¹⁰.
3. Investment opportunities and enhancing partnership with the private sector¹¹.
4. Reducing energy supply costs¹².
5. Marketing investment opportunities in the energy sector¹³.
6. Developing the energy sector infrastructure¹⁴.
7. Enhancing the environmental sustainability of the energy sector¹⁵.
8. Enhancing the efficiency of the electrical system¹⁶.

Mineral Resources Sector

The mineral resources sector falls under the **High-Value Industries** driver ¹⁷, encompassing (2) main initiatives from which (18) priorities emerge¹⁸.

Main Initiatives for the Mineral Resources Sector: ¹⁹

- Establishing a regulatory umbrella for natural resources²⁰.
- Encouraging investment in national mineral resources²¹.

Energy Sector Planning

- Developing an electronic system to monitor the completion of donor projects in the energy sector, for the purpose of tracking the progress of each project submitted by donors and avoiding duplication in project implementation²².
- Issuing the Energy Balance for Jordan for the year 2023 in both Arabic and English²³.
- Initiating work with the German Energy Agency within the Jordanian-German Partnership, with the following achievements accomplished by the Data Management Team (one of 3 main working teams established under the partnership)²⁴:
 - An inaugural meeting with the consulting firm appointed by the German Energy Agency to work with the Data Management Team²⁵.
 - The firm conducted several interviews with the partner entities of the Energy Sector Planning Department, prepared a map of data flow from partners to the Ministry, and outlined how this data is obtained and the mechanism for its representation in the Energy Balance²⁶.

- The firm prepared a report including the most important outputs from the interviews, as well as strategic recommendations for improving the process of data transfer and exchange between the Ministry and partners²⁷.
- Commencing work on the Energy Sector Strategy through the following steps²⁸:
 - Preparing the Terms of Reference for appointing the consulting firm for the strategy preparation²⁹.
 - The European Union appointed the consulting firm, and work on the strategy has begun³⁰.
- Preparing the Coordinated National Plan for Dealing with Hazardous Materials in cooperation with the Crisis Management Center³¹.
- Electrical power outage cases³².

Institutional Planning

- Preparing the Ministry's strategic plan, including the formulation of objectives at all levels and their associated performance indicators³³.
- Preparing and evaluating the executive plans of the organizational units on the strategic plan monitoring and evaluation system³⁴.
- Working on issuing quarterly evaluation reports for executive plans in cooperation with the organizational units through the change team³⁵.
- Monitoring the progress of implementing the Economic Modernization Vision initiatives for the energy sector³⁶.

- Preparing the evaluation report for reinforcing core values for the years (2022-2024), third edition³⁷.

Partner Relationship Management

- Preparing a partner satisfaction study for 2024, with a partner satisfaction rate of (89.3%) compared to (87.8%) for 2023³⁸.
- The number of joint committees and partnership councils with the public and private sectors and universities in the fields of energy and mineral resources reached 4 committees³⁹.

Service Recipient Relationship Management

- Issuing the updated version of the Services Guide for the years (2024) and updating the service cards⁴⁰.
- Preparing a service recipient satisfaction study, where the satisfaction rate for 2024 reached (92.9%) compared to (93.2%) for 2023⁴¹.
- The Customer Happiness Office received (4652) visitors⁴², categorized as follows:
 - Natural Gas services: 156⁴³.
 - Financial: 176⁴⁴.
- During 2024, the Ministry of Energy and Mineral Resources maintained the ISO 9001:2015 certification in the field of preparing and developing appropriate policies and legislation to achieve secure and sustainable energy supply and optimal utilization of natural resources according to best international practices⁴⁵.

This was awarded by SGS Jordan, recognizing the certificate's importance in supporting the Ministry's work, ensuring reliance on a documented and stable procedures system, which achieves clarity and sustainability in work, reduces costs and expenses, guarantees the trust of partners and stakeholders, and achieves service recipient satisfaction⁴⁶. This achievement resulted from senior management support and the efforts of the internal auditing team from the Ministry's employees⁴⁷.

Electronic Services

No.	Service Name	Number of Requests
Services with Fees Waived (Free)		
1.	Request for Issuance/Renewal of Energy Auditing Practice License	3
2.	Request to Subject Energy Auditing Services to Zero-Rate General Sales Tax	16
3.	Training Request	35

No.	Service Name	Number of Requests
4.	Energy Consumption Rationalization Systems, Equipment, and Devices	513
5.	Request for Exemption of Inputs for Energy Consumption Rationalization Systems (Insulation Materials)	2
6.	Request for Exemption of Inputs for Electricity Generation Systems using Renewable Energy	388
7.	Request for Exemption of Inputs for Steam Production Systems using Concentrated Solar Thermal Energy	4
	Request for Exemption of Integrated Renewable Energy Systems, Equipment, and Devices	80
	Request to Subject Energy Auditing Services to Zero-Rate General Sales Tax	16

No.	Service Name	Number of Requests
	Request for Exemption of Inputs for Manufacturing Renewable Energy Systems (Solar Water Heaters, Solar Cells Panels, Metal Structure)	17
8.	Request for Electrical Current Connection under the Rural Electrification Program	1539
9.	Request for Installation of a Solar Energy System under the Rural Electrification Program	2269
10.	Request for Approval for the Purpose of Including Fragments and Scraps	0
11.	Request for Granting Approval on Sale or Partition Transactions	0
12.	Service Request for Information on Energy and Mineral Resources	36

No.	Service Name	Number of Requests
Fee-Paying Services		
13.	Request for Laboratory Test - Petrographic Study	174
14.	Purchasing Tender Copies	146
15.	Request for Purchasing Digital Maps	2
16.	Request for Information and Studies on Petroleum and Oil Shale	1
17.	Request for Information and Seismic Studies	0

In the Field of Knowledge Management and Innovation

- Following up on the implementation of the winning innovative ideas from the first cycle of the Innovative Idea Award (2022/2023) with the winning innovation teams and relevant directorates⁴⁸.

- Preparing a study to measure employee satisfaction with lectures during 2024, where (9) awareness lectures were held with various titles under the "Visitor of the Month" program⁴⁹. The results included:
 - The cognitive impact of the lectures reached (98.4%) during 2024, compared to (98.4%) in 2023⁵⁰.
 - Employee satisfaction with the lectures reached (94.0%) during 2024, compared to (95.7%) in 2023⁵¹.
 - The average employee attendance was (51) employees per lecture during 2024, compared to (31) employees per lecture in 2023⁵².
- Preparing a study to measure employee satisfaction with the email (Knowledge Morning) for 2024⁵³:
 - Employee satisfaction with the Knowledge Morning email reached (90.6%) during 2024, compared to (91.9%) in 2023⁵⁴.
 - The number of messages sent was (163) during 2024, compared to (217) in 2023⁵⁵.
- Preparing a study to measure knowledge and innovation awareness in the Ministry of Energy and Mineral Resources for 2024⁵⁶, which included the following results:
 - General awareness of the concept of knowledge reached (90.4%) during 2024, compared to (96.2%) in 2023⁵⁷.
 - Awareness of the concept of innovation reached (86.2%) during 2024, compared to (88.0%) in 2023⁵⁸.

- Preparing an **expert card** for every employee registered in the Ministry's expert database, with the aim of transferring specialized tacit knowledge from more experienced employees to less experienced ones, and having it approved by the Secretary General⁵⁹.
- Preparing a study of the knowledge needs of the Ministry's operations implementers for 2023⁶⁰.
- Retrieving the explicit knowledge available for 2023, which was inventoried by the Ministry's data supervisor team, and updating the knowledge assets system on the Ministry's internal website with that knowledge⁶¹.
- Reforming the Innovative Idea Award committee, launching the second cycle of the award for employees, and currently evaluating the projects submitted by the participating innovation teams, which number (2) teams⁶².
- Updating the threat plan to knowledge assets for 2023 and including it in the Ministry's risk management plan⁶³.
- Conducting benchmarking with the Ministry of Transport regarding capabilities and achieved results according to the King Abdullah II Award for Government Performance and Transparency standards, in addition to informing them of the Ministry's key procedures in institutional development⁶⁴.
- Cooperating with the German Energy Agency on developing an innovation ecosystem in the energy sector in partnership with official universities and the

main project partners (energy sector institutions, energy-related associations, innovation incubators)⁶⁵.

In the Field of International Cooperation

The following Memoranda of Understanding (MoUs), Agreements, Contracts, and Cooperation Letters were signed⁶⁶:

- An **usufruct agreement** was signed between the University of Jordan and the Ministry of Energy and Mineral Resources to establish and regulate the operation of a seismic monitoring station at the University of Jordan – Aqaba branch on 11/9/2024⁶⁷.
- The **Memorandum of Understanding** signed with the Public Security Directorate was renewed on 7/3/2024⁶⁸.
- A **cooperation agreement** between the Government of the Hashemite Kingdom of Jordan and the Government of the Kingdom of Saudi Arabia in the field of energy was signed on 11/1/2024⁶⁹.
- **Draft Memorandum of Technical Cooperation in Energy Planning and Rationalization:** The Kuwaiti side was responded to on 19/12/2024, and the response from the Kuwaiti side is still awaited⁷⁰.
- **Draft Memorandum of Understanding for Cooperation between the Ministry of Energy and Mineral Resources:** An amended copy was officially sent to the Canadian side on 28/5/2024, and the response from the Canadian side is still awaited⁷¹.

- Activation of **Trilateral Cooperation** between Egypt, Jordan, and Iraq in the field of electricity and renewable energy⁷².
- **Memorandum of Understanding** in the field of training and experience exchange between the Ministry of Energy and Mineral Resources and the Hashemite University in May 2024⁷³.
- Signing of a **Memorandum of Cooperation** between the International Center for Green Technology and Investments and the Renewable Energy and Energy Efficiency Fund / Ministry of Energy and Mineral Resources⁷⁴.

Promoting Women's Participation in the Energy Sector

The Second Annual Conference of the RENEW MENA Network

The Ministry of Energy and Mineral Resources in the Hashemite Kingdom of Jordan hosted the events of the Second Annual Conference of the RENEW MENA Network from May 20–23, 2024, with the participation of more than 150 figures from countries across the Middle East and North Africa. The conference was opened by His Excellency the Minister of Energy and Mineral Resources, Dr. Saleh Al-Kharabsheh, who affirmed Jordan's full support for women's active participation in the energy sector, stating:

"Women should not face any challenges in the energy sector in Jordan."

The conference reflected Jordan's commitment to the principles on which the RENEW MENA Network was founded, by supporting policies and initiatives aimed at empowering women and promoting diversity and inclusion in the energy sector.

RENEW MENA 2024 Awards Presented to Jordan:

1. **Partner of the Year Award** — The Ministry of Energy and Mineral Resources in Jordan received the "Partner of the Year" award in recognition of its active role in supporting the RENEW MENA Network and contributing to regional partnership aimed at empowering women in the energy sector. The award was received by Eng.

Amani Al-Azzam, Secretary-General of the Ministry and a member of the network's steering committee, in recognition of her strategic leadership in mainstreaming gender considerations into national energy sector policy.

2. **Special Recognition of Excellence Award** — Given to Ms. Rasha Marar, Gender Focal Point at the Ministry of Energy and Mineral Resources and RENEW MENA Network Liaison Officer in Jordan, in recognition of her outstanding organizational and coordination efforts that contributed to the success of the network's second conference. She played a pivotal role in bringing together national and international parties and organizing sessions and activities that reflected Jordan's leading image in supporting women in the energy sector.
3. **Excellence in Leadership for Women in Energy Award** — Presented to Eng. Reem Hamdan, General Manager of the Electricity Distribution Company in Jordan, in recognition of her pioneering leadership career and distinctive contributions to developing electrical infrastructure, as well as strengthening women's presence in senior executive positions in the sector.
4. **"Rising Star" Award – Al-Hussein Technical University (HTU)** — Al-Hussein Technical University in Jordan received the Rising Star Award as part of the RENEW MENA 2024 Awards, in recognition of its prominent role in supporting technical education and linking it to the requirements of the energy sector labor market, and for its ongoing commitment to empowering youth — particularly young women — toward sustainable career opportunities in renewable energy fields. The award was

received by Prof. Dr. Ismail Al-Hanati, in recognition of his distinguished leadership and contribution to driving the university toward excellence in this field.

5. **Young Professional Excellence Award** — Eng. Aya Mousa, an Energy Management Systems Engineer at Kawar Energy, was honored with this award for her professional excellence and active participation in national projects that enhance energy efficiency, as well as for being a role model for young female engineers in the field of renewable energy.

As part of the conference activities, a field trip was organized to Ajloun Governorate, one of the most beautiful natural areas in northern Jordan, where participants had the opportunity to learn about the region's rich cultural and natural heritage and to interact in an informal atmosphere that strengthened team spirit and communication among network members — helping to build stronger professional and personal relationships among them.

Ministry staff by gender during 2024:

Indicator	Percentage
Ratio of women to men	37%
Women in leadership positions	34%

Indicator	Percentage
Women in supervisory positions	39%
Women in specialized positions	43%
Women in support positions	34%

Percentage of women in projects of the Renewable Energy and Energy Efficiency Fund:

Sector	Project	Total	Number of Females	% Female
Household Sector	Installation of hot-water heaters for households (number of households)	24,800	4,144	17%
	Installation of LED bulbs for households (number of households)	28,119	3,372	12%
	Installation of photovoltaic systems for households (number of households)	4,691	236	5%

Sector	Project	Total	Number of Females	% Female
Public & Government Buildings	Installation of photovoltaic systems for schools (number of students and staff)	70,426	41,000	58%
	Installation of photovoltaic systems for public institutions (number of beneficiaries, by gender)	40,341	22,632	56%
Agriculture Sector	Installation of photovoltaic systems for farms (number of farm owners, by gender)	164	10	6%
Training Programs	Number of trainees, by gender	1,636	736.2	45%
Renewable Energy and Energy Efficiency Fund	Total	170,177	72,130.2	42%

Activities and Initiatives Directed at the Ministry's Female Employees

Regarding social responsibility:

- Two cancer and breast-cancer awareness events were organized for female employees during February and October, with 30 employees participating.
- A field/study visit was organized for the Ministry's female employees to the Hamzah Field to learn about the progress of field development operations.
- A Women's Empowerment Day was held in March to celebrate International Women's Day, through a workday run entirely by the Ministry's female employees, with all directorates and organizational units participating.
- As part of the "Visitor of the Month" program, 9 awareness lectures were held, with female employee attendance reaching 49%.

Electronic Readiness

During 2024, the Ministry of Energy and Mineral Resources continued its intensive efforts to support digital transformation and enhance the technological infrastructure of the Ministry, where the following was achieved:

- 94.9% of employees were provided with modern computers.
- 100% of these devices were equipped with internet service and email.
- Employee satisfaction regarding electronic readiness for 2024 reached 95%.

These efforts have resulted in tangible achievements in electronic systems, cybersecurity, e-services, government data, and website management, contributing to improved institutional efficiency and enhanced service quality.

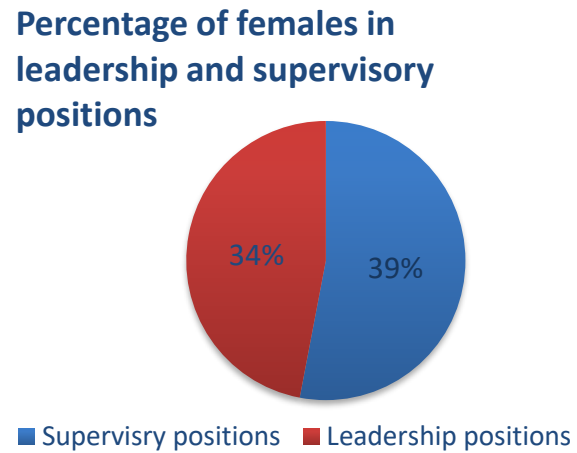
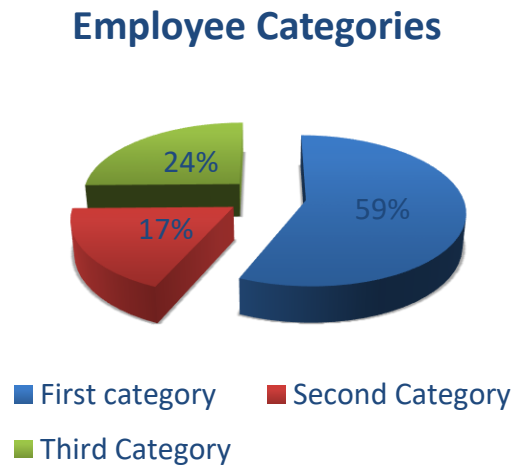
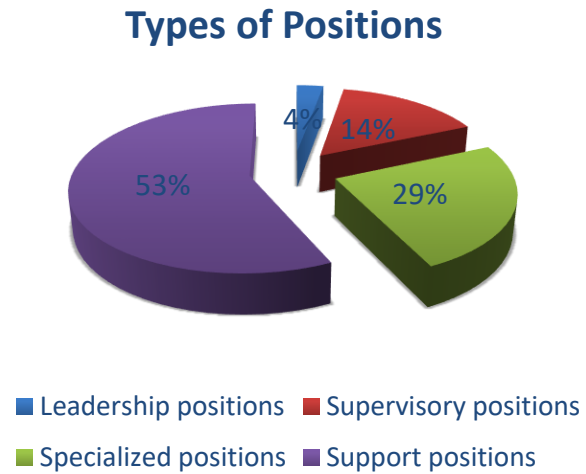
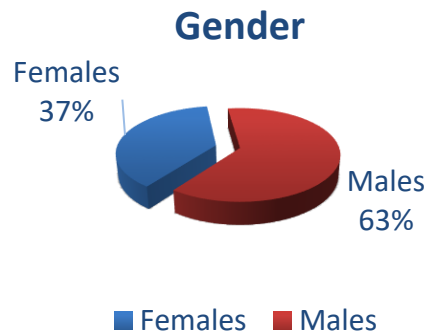
Enhancing Security Incident Response

- Establishment of a Security Operations Center (SOC) to monitor systems around the clock in cooperation with the National Cybersecurity Center.
- Reducing incident response time to 30 minutes.
- Successfully handling 98% of security incidents.

Human Resources

✓ Human resources working in the Ministry.

- The number of Ministry employees at the end of 2024 was (402) employees, distributed as follows:



- Employee satisfaction reached 80.4% in 2024.

Training and Development:

- 147 training programs were implemented during the 2024 training plan, representing approximately 83.5% of the target.
- 21 newly graduated engineers received training under an agreement with the Jordan Engineers Association for one year.
- 46 geologists received training through the Jordan Geologists Association.
- 81 university graduates (from various disciplines relevant to the Ministry's work) received training within the Ministry's directorates.
- 22 trainees (provided free of charge) from various disciplines relevant to the Ministry's work were trained to gain experience.
- The Renewable Energy and Energy Efficiency Fund offers training programs in cooperation with several local and international organizations in the fields of renewable

energy, energy efficiency, and conservation. The following have benefited from these programs:

- Employees of the Renewable Energy and Energy Efficiency Fund.
- Employees from the public and private sectors and electricity distribution companies.
- Employees within establishments that have benefited from the Fund's programs and projects.

2,060 trainees have benefited from these programs since their inception until the end of 2024.

Media, Communication, and Awareness

3.13 – Media, Communication, and Awareness.

Preparing the Ministry of Energy and Mineral Resources media strategy for the years 2024-2025, including key areas focused on highlighting and promoting the Ministry's

identity, strengthening relationships with stakeholders through approved channels, and showcasing the activities implemented by the Ministry during 2024.

1- Publishing news covering the Ministry's achievements and daily activities.

2- Designing and publishing (11) awareness messages on rationalizing energy consumption in the residential sector.

3- Responding to inquiries from journalists and media professionals regarding the energy and mineral resources sector.

4- Producing awareness videos about the mineral resources sector to highlight the importance of mineral resources and their investment value. The Ministry maintains four accounts on social media platforms: Facebook, YouTube, LinkedIn, and X Platform.

4.13 - Government Complaints Management System (Your Service Platform)

The Ministry handled 1,210 requests through the Your Service Platform, achieving a 100% response rate, broken down as follows:

982 Complaints.

179 Government Questions.

31 Suggestions.

18 Praises.

0 Reports.

The Ministry achieved a 78% satisfaction rate among users of the Your Service Platform.

5.13 The Ministry's Enforcement of the Right to Information Law

- Responding to 24 electronic information requests, distributed as follows:

12 Males

9 Females

- Responding to 3 information requests submitted by institutions. - The average response time to requests was 1 day.

- Service satisfaction rate: 97.4%.

- Percentage of requests accepted by the Ministry: 100%.

- Percentage of requests answered: 100%.

• The Information Requests Follow-up Committee updated the answers to 86 frequently asked questions published on the Ministry's website.

The Information Requests Follow-up Committee organized the following training activities:

- Celebrating Right to Information Week, coinciding with the International Day for Universal Access to Information, which included:

- 1- Designing and distributing awareness messages about the right to information, to the employees via email.
- 2- Distributing awareness brochures about the right to information to Ministry employees and a number of surrounding official institutions and ministries.
- 3- Producing two informational and awareness videos on enforcement, produced by the Media Unit.
- 4- The Information Officer's participation in 13 training programs for employees of government institutions, in partnership with the National Library Department.
- 5- Implementation of internal training programs for 46 employees.

6- Conducting 3 specialized training workshops for employees in (Public Service – Diwan – Implementation Team).

14- Awareness lectures for schools and government institutions.

1.14 Raising awareness of the concepts of (energy conservation).

7- Lectures to raise awareness among school students on energy conservation and related environmental practices for schools and institutions.

9 lectures were attended by 90 male and female students from schools and approximately 250 from institutions.

	Governorate	Institution Type	Institution Name	Number of Attendees	Date
1	Amman	Governmental	Civil Service Consumer Corporation / General Administration	25	28/2/2024
2	Amman	Private	Jopetrol Jordan	40	20/3/2024

3	Zarqaa	Governmental	Zarqa Municipality / Administration	35	30/4/2024
4	Amman	Governmental	University of Jordan in coordination with the Water and Energy Center	150	26/5/2024

	Governorate	School Type	School Name	Number of Students	Date
1	Amman/Al-Fuhais	Governmental	Maryam Bint Imran Primary Mixed School	45 female studens	5/3/2025
2	Amman/7 th Circle	Private	Modern American Schools	20 mixed students	18/4/2024
3	Amman/Deir Ghbar	Private	Canadian International School	8 mixed students	28/4/2024
4	Amman/Badr Al-Jadeeda	Private	Duroob Al Maarefa School	12 mixed students	25/11/2024

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Energy in Numbers

Here's the translated table:

Jordan's Energy Sector in 2024 — Key Figures

#	Value	Indicator
1	10,128	Primary energy quantities consumed in the Kingdom
2	215 koe/\$1000	Energy intensity for 2021 at fixed exchange rates, base year 2016
3	JD 2,637 million	Cost of imported energy
4	1,986	Per capita consumption of electrical energy
5	860	Per capita energy consumption
6	99%	Electricity supply security rate

#	Value	Indicator
7	44%	Contribution rate of domestic sources to electricity generation
8	26.92%	Contribution rate of renewable energy to electricity generation
9	58%	Contribution rate of natural gas to electricity generation
10	15%	Contribution rate of oil shale to electricity generation
11	2,840 MW	Total installed capacity of renewable energy electricity generation projects
12	1,506 MW	Capacity of projects whose generated electricity is sold to electricity companies
13	1,320.8 MW	Capacity of renewable energy system projects owned by subscribers to cover their own consumption using net metering, net billing, and wheeling
14	13.4 MW	Capacity of biogas and hydropower projects at the Khirbet As-Samra treatment plant
15	4	Number of natural gas supply sources (LNG / Egyptian / Noble / Risha)
16	100%	Crude oil and petroleum products supply security rate
17	38	Crude oil stock sufficiency (days)

#	Value	Indicator
18	32	LPG stock sufficiency (days)
19	54	Gasoline 90 stock sufficiency (days)
20	74	Gasoline 95 stock sufficiency (days)
21	65	Diesel stock sufficiency (days)
22	327 million ft ³ /day	Average daily natural gas quantities consumed from available sources
23	3.814 million barrels	Quantities of Iraqi oil supplied to the Hashemite Kingdom of Jordan
24	70 barrels	Daily production at the Hamza field
25	50 million ft ³ /day	Production capacity of the Risha gas field
26	27.6 million ft ³	Daily average of natural gas quantities consumed in industry
27	1,866	Homes that installed a renewable energy system through the Fund's 2024 programs
28	4,533	Homes that installed a solar water heater through the Fund's 2024 programs

#	Value	Indicator
29	230	Number of farms that installed solar cell systems through the Fund since the start of the program until the end of 2024
30	631	Number of places of worship that installed solar cell systems through the Fund since the start of the program until the end of 2024
31	124	Number of industrial facilities that conducted energy audit studies through the Fund since the start of the program until 2024
32	202	Number of industrial facilities that participated in the Factories Energy Efficiency Program through the Fund since the start of the program until 2024
33	2,055	Number of sites approved for implementation under the "Fils Al-Reef" account
34	1,305	Number of chemical and mineral analyses and tests
35	846	Number of earthquakes monitored
36	97.4%	Satisfaction rate of information request service recipients
37	5	Number of automated electronic payment services
38	24	Number of electronic systems in the Ministry
39	9	Number of awareness lectures

#	Value	Indicator
40	89.3%	Partner satisfaction rate
41	92.9%	Service recipient happiness rate
42	96.1%	Budget performance rate (current expenditures)
43	76.2%	Budget performance rate (capital expenditures)
44	24	Number of information requests
45	1 day	Average response time for information access requests
46	97.4%	Satisfaction rate with the information requests service
47	78%	Satisfaction rate of "Bikhidmatkum" platform users

Special indicators in numbers

Crude Oil and Petroleum Products Imports, 2019–2024 (thousand tons)

Year	Crude Oil	LPG	Diesel	Gasoline	Jet Fuel	Kerosene
2020	2,074	409	910	773	0	4.8
2021	1,757	377	914	899	16	23
2022	1,805	475	1,098	911	74	31

Year	Crude Oil	LPG	Diesel	Gasoline	Jet Fuel	Kerosene
2023	1,776,470*	406,005*	1,00.1913*	893.316*	41.001*	22.022*
2024	1,871	489	910	756	21	22

Petroleum Products Consumption Trend, 2019–2024 (thousand tons)

Year	LPG	Gasoline	Jet Fuel	Kerosene	Diesel	Fuel Oil	Asphalt
2020	463	1,139	137	83	1,313	145	135
2021	438	1,342	211	77	1,365	176	96
2022	480	1,365	215	69	1,596	189	90
2023	497	1,320	265	98	1,495	174	124
2024	562	1,285	330	81	1,520	116	131

Domestic Crude Oil and Gas Production, 2020–2024

Year	Oil Production (barrels)	Gas Production (billion ft ³)
2020	9,714	5
2021	107,880	7
2022	94,675	5

Year	Oil Production (barrels)	Gas Production (billion ft ³)
2023	44,094	6
2024	25,621.5	6

Electricity Generation and Peak System Load Trend, 2020–2024

Year	Peak Load (MW)	Electricity Generated (GWh)
2020	3,630	20,952.8
2021	3,770	22,134
2022	4,010	22,545.7
2023	4,240	24,182
2024	4,100	25,080

Sectoral Share of Electricity Consumption, 2019–2024 (%)

Year	Residential & Public Buildings	Industrial	Commercial & Hotels	Agricultural Water Pumping	Street Lighting	Transport — EV Charging	Total
2019	46	20	16	15	3	—	100
2020	49	19	14	16	2	—	100

Year	Residential & Public Buildings	Industrial	Commercial & Hotels	Agricultural Water Pumping	Street Lighting	Transport — EV Charging	Total
2021	48	21	15	14	2	—	100
2022	48	21	15	14	2	—	100
2023	46	22	17	13	2	0.07	100
2024	47.3	20.3	17.2	13.5	1.6	0.1	100

Ministry of Energy and Mineral Resources — Financial Data, 2024

Description	2024 Allocated Budget	2024 Actual Expenditure	Disbursement Rate
Current expenditures	651,9000*	62,6405*	96.1%
Capital expenditures (after a reduction of JD 8,100,000)	1,769,0000*	134,8020*	76.2%
Total (current + capital)	2,420,9000*	197,4485*	81.6%

Ministry of Energy and Mineral Resources — Service Centers

No.	Center	Location	Contact Info
2.	Northern Governorates Rural Electrification Office	Irbid	0272458989
—	Mafraq and Eastern Region Electrification Office	Mafraq	026230498
3.	Central Governorates Rural Electrification Office	Head Office	065803060 Ext. او 1184 1183 Fax. 065863321
4.	Southern Governorates Rural Electrification Office	Karak	032387215

Ministry of Energy and Mineral Resources Services, 2024

#	Category	Service
1	Electricity Connection Services (Fils Al-Reef Account)	Connecting electricity from existing networks to beneficiaries per approved criteria, charged to the Fils Al-Reef account (inside/outside municipal boundaries)

#	Category	Service
2		Connecting electricity to artesian wells located outside municipal boundaries, via electrical networks or off-grid solar systems, charged to the Fils Al-Reef account
3		Installing solar energy systems for beneficiaries of the National Aid Fund and low-income families, charged to the Fils Al-Reef account
4		Connecting electricity to individual homes located outside municipal boundaries using off-grid solar systems, charged to the Fils Al-Reef account
5	Renewable Energy Services	Application for approval of duty exemption on inputs for solar power generation systems
6		Application for approval of duty exemption on energy-efficiency systems, devices, and equipment
7		Approval of duty exemption on inputs for solar water heating systems
8		Approval of duty exemption on inputs for bioenergy systems

#	Category	Service
9		Approval of duty exemption on energy-efficiency systems (insulation materials)
10	University Student & Recent Graduate Training	Training university students and recent graduates in the Ministry's organizational units
11	Laboratory Testing	Request for laboratory tests
12	Geological Information & Mapping Services	Request for information on petroleum and mineral wealth, and petroleum archive data
13		Provision of geological maps and reports
14		Purchase of digital maps
15	Renewable Energy Promotion & Efficiency Services	Granting an energy-audit practice license
16		Renewing an energy-audit license
17		Energy audits for government buildings
18		Energy audit service for small and medium industries, and implementation of study outcomes
19		Energy audit service for hotels

#	Category	Service
20	Energy & Mineral Resources Information Request Service	Request for information on energy and mineral resources
21	Seismic Information & Studies Service	Seismic information and studies
22	Geological Studies & Survey Services	Geological surveys
23		Geophysical studies
24		Petrographic studies
25	Natural Gas Services	Application for approval of facility licenses on land plots that intersect or fall within the natural gas pipeline right-of-way
26		Approval of sale or subdivision transactions on land plots partially expropriated for the gas pipeline project
27		Application for approval to consolidate leftover/unusable land fragments resulting from land expropriation for the natural gas pipeline project

Ministry of Energy and Mineral Resources — E-Services Portal

Electronic payment services

No.	Service Name
1.	Laboratory tests
2.	Seismic information and studies
3.	Digital maps
4.	Petroleum and oil shale information and studies
5.	Purchase of tender copies

Free electronic services

No.	Service Name
1	Request for information on energy and mineral resources
2	Electricity connection charged to the Fils Al-Reef account
3	Installation of solar cell systems for National Aid Fund beneficiaries
4	Renewable energy system duty exemptions (5 forms)
5	Training (recent graduates and students)
6	Approval of sale or subdivision transactions on partially expropriated land plots

No.	Service Name
7	Approval to consolidate leftover/unusable land fragments from gas pipeline expropriation
8	Granting/renewing energy audit license (Category I, II, III) (3 forms)
9	Energy audit for small and medium industries
10	Energy audit for hotels