ANNUAL REPORT
2021
His Majesty King Abdullah II Ibn Al Hussein
His Highness Prince Al-Hussein bin Abdullah II, The Crown Prince
Foreword by the Minister of Energy & Mineral Resources

Together we create excellence and achieve sustainability, a slogan adopted by the Ministry of Energy and Mineral Resources to encourage a participatory approach with all concerned, believing in the importance of participatory work to achieve our vision of ensuring sustainable energy supply security and optimal utilization of natural resources.

A participatory approach that leads to the diversification of energy sources and increases the dependency on local sources, where the percentage of renewable energy share in the electricity generation reached (26%), and we seek to increase this percentage by working on many studies to develop the electrical grid and shift towards smart grids, and investigate the optimal storage options in order to keep pace with all global developments to enrich Jordan's success story in this field. In addition, working in parallel on electrical interconnection projects in order to make Jordan a regional center for energy exchange, which is considered one of the most important strategic goals within the energy sector’s strategy.

It is necessary to focus on the importance of working on improving energy efficiency in various fields. As the Ministry of energy launched many programs to support in raising awareness among various sectors about the importance and benefits of improving energy efficiency. Moreover, we will continue supporting all sectors and provide support in various forms, financial support, raising awareness, and formulating policies to reach what we seek in this field.

Our mineral wealth has a major role in increasing our dependence on our national wealth, and we will continue working to provide clear investment opportunities and work towards developing appropriate legislation to attract various investments in this field.

Continuous improvement is an approach we follow and strive to achieve the best, to serve our dear homeland as a team.

Minister of Energy & Mineral Resources
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The Organizational Structure of the Ministry of Energy & Mineral Resources
About the Ministry of Energy and Mineral Resources

Vision
To achieve a sustainable supply of energy and optimal use of natural resources.

Message
Preparing and developing suitable policies and legislation to achieve a sustainable supply of energy and optimal use of natural resources according to global best practices.

Principal values

National objectives the Ministry contributes to achieving
Strategic objectives for the Energy and Mineral Resources sector (sectoral objectives)

1. Diversifying sources of energy and their forms
2. Increasing the share of local energy sources in the total energy mix
3. Improving the efficiency of energy use in all sectors
4. Reducing the costs of energy for the national economy
5. Developing the energy sector system in Jordan to make it a regional hub for the exchange of energy in all its forms
6. Maximizing the added value of exploiting existing mineral ores

Strategic objectives of the Ministry of Energy and Mineral Resources

1. Establishing & reinforcing strategic thinking and governance practices
2. Diversifying energy sources
3. Developing local energy sources
4. Conserving energy and improving its efficiency
5. Increasing investment in the mineral resources sector
6. Monitoring, analysing and evaluating seismic information
7. Reinforcing and developing relations and international co-operation
8. Boosting the performance of institutions
# Programs which contribute to achieving the strategic objectives of the Ministry of Energy and Mineral Resources

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<td>Establishing and reinforcing strategic thinking and governance practices</td>
<td>Developing the Ministry’s strategies and decision-making mechanisms</td>
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| Diversifying energy sources                                              | • Developing the oil sector and opening the oil derivative market for competition  
|                                                                          | • Preserving the security of the natural gas supply                       |
|                                                                          | • Preserving the security of the electrical energy supply                 |
| Developing and utilizing natural energy sources                          | • Expanding the use of renewable energy sources                          |
|                                                                          | • Expanding the use of oil shale to produce oil and generate electricity |
|                                                                          | • Development of exploration areas for conventional and unconventional oil and gas exploration |
| Conserving energy and improving its efficiency                           | • Residential sector programme                                            |
|                                                                          | • Industrial sector programme                                             |
|                                                                          | • Government buildings sector programme                                   |
|                                                                          | • Tourism sector programme                                                |
|                                                                          | • Waiver programme                                                         |
|                                                                          | • Energy training programme                                                |
|                                                                          | • Awareness and educational programme                                      |
| Increasing investment in the mineral resources sector                    | • Increasing investment in the mineral resources sector                  |
|                                                                          | • Increasing the accuracy and quality of laboratory tests                 |
| Monitoring, analysing and evaluating seismic information                 | Updating the Seismological Observatory                                   |
| Reinforcing and developing relations and international co-operation      | Encouraging international co-operation                                     |
| Boosting the performance of institutions                                 | • Institutional development                                             |
|                                                                          | • Information and communication technologies                             |
|                                                                          | • Improving the efficiency of financial performance                       |
|                                                                          | • Internal monitoring                                                     |
|                                                                          | • Human resource development, creating and encouraging the capacities   |
|                                                                          | • Public relations                                                        |
|                                                                          | • Administrative services                                                 |
Institutional Framework

The primary mission of the Ministry of Energy and Mineral Resources as an umbrella for energy sector institutions is to prepare and develop suitable policies and legislation to achieve a sustainable supply of energy and optimal use of natural resources according to global best practices, executed through comprehensive planning for the sector, setting general policies and following up on their implementation to ensure the completion of the tasks they have been assigned for.

Since the inception of the Ministry of Energy and Mineral Resources in 1984 until now, the organizational framework of the Ministry has developed as follows:

The Ministry was created at the end of 1984 and was entrusted with the management and organization of the energy sector under the Ministry of Energy and Mineral Resources System of Regulation and Management No. (26) for the year (1985) so that it assumes responsibility for the complete planning of the sector.

According to the paragraph c of Article 3 of the Law of Restructuring governmental agencies and Institutions No. (17) For the year (2014), the Natural Resources Authority established under the Natural Resources Regulation Law No. (12) Of the year 1968 has expired, and the rights and belongings of the authority have been transferred to the Ministry with the exception of regulatory tasks.

And accordingly the Ministry has since started work on preparing and developing suitable policies and legislation to achieve a sustainable supply of energy in addition to its main mission of achieving optimal use of natural resources according to best practices.

After the enactment of the Energy and Minerals Regulatory Commission Law No. (8) for the year 2017 stating in article (4/b) that the Energy and Minerals Regulatory Commission shall assume the tasks and privileges regarding the granting of licenses and permits to people working in the sector, the Ministry’s regulatory tasks relating to granting licenses and permits were transferred to the Energy and Minerals Regulatory Commission.

The regularity bylaw of the Ministry of Energy and Mineral Resources No. (123) for the year 2019 was issued, resulting in the restructuring of the organizational units in order to effectively and efficiently achieve the tasks entrusted to them.

Instructions issued to specify the responsibilities of directorates, units and departments within the Ministry of Energy and Mineral Resources No. (1) For the year 2021 according to paragraph (a) from article (7) of the Administrative Regulation bylaw for the Ministry of Energy and Mineral Resources No. (123) for the year 2019.
Energy Sector Organizations

Oil Sector Organizations

Petroleum & Gas Sector Organizations

Electricity Sector Organizations

Ministry of Energy & Mineral Resources
Accomplishments of the Ministry of Energy and Mineral Resources

Accomplishments in the field of energy and mineral resources which have been achieved in the year 2021 despite the many challenges that faced the sector during the Coronavirus pandemic, and for that reason this report will display those achievements as follows:

1. **In the field of electrical energy**

Electrical energy in the Hashemite Kingdom of Jordan was generated from natural gas at a percentage of (73%) and from renewable energy at a percentage of (26%) with (1%) from other sources, compared to (80%) and (20%) respectively for the year 2020.

![电气能图](image)

1.1 **Generating electrical energy from natural gas**
The quantity of natural gas consumed for electricity generation reached about (340) million cubic feet per day from the four available sources.

1.2 **Generating electrical energy from renewable energy**
The total installed capacity of electric power generating projects from renewable energy reached about 2445.7 MW, and includes:

- **947.6 MW** Renewable energy projects owned by subscribers to cover their consumption by using net metering and wheeling schemes
- **1498.1 MW** Projects where the electric power generated is sold to electrical companies
Electricity generation projects using renewable energy During the years 2015 - 2021

2015
- TOTAL: 134.5 MWac
  - Azraq project/ Spanish grant: 2.5 MW
  - Hussein wind project/ Gulf grant: 66 MW
  - Al Badia Power Generation Company project: 13 MW
  - Jordan wind company project: 117 MW

2016
- TOTAL: 270 MWac
  - Azraq project/ Spanish debt swap grant: 2 MW
  - 12 energy projects/ Direct offers at a capacity: 204 MW

2017
- TOTAL: 34 MWac
  - Hussein wind project/ Gulf grant: 14 MW

2018
- TOTAL: 235 MWac
  - FRV Solar project: 50 MW
  - Sheikh Zayed Solar Energy Complex project / Gulf grant: 92 MW

2019
- TOTAL: 345 MWac
  - AM Solar project: 40 MW
  - Safawi Green Energy project: 51 MW
  - Sheikh Zayed Solar Energy Complex project / Gulf grant: 92 MW

2020
- TOTAL: 345 MWac
  - Mass Jordan for Renewable Energy project: 100 MW
  - Baynounah solar project: 200 MW
  - Shobak company wind project: 45 MW

2021
- TOTAL: 153.5 MWac
  - Energy wind project in Tafila: 51.75 MW
  - Daehan wind project in Tafila: 51.75 MW
  - Philadelphia project: 50 MW
  - Al-Fujel Wind Energy project: 89 MW
  - Green Energy for Renewable Energy project: 86.1 MW
Added capacities for renewable energy systems with the purpose of covering the consumption of subscribers during (2015–2021) by companies (MW)

Number of renewable energy systems with the purpose of covering the consumption of subscribers during (2015-2021) by companies
Cumulative capacities of renewable energy systems with the purpose of covering the consumption of subscribers during (2021-2015) by companies (MW)

1.3 Generating electricity using the direct combustion of oil shale
This project which depends on the direct combustion of oil shale to generate electricity at a capacity of 470MW is being implemented by Attarat Power Company, it is expected that the operational tests of the project and its commercial operation will be completed during 2022.

1.4 In the field of electrical interconnections

- **Strengthening the Jordanian-Egyptian interconnection**: A framework agreement was signed 2021/3 between the two sides on the joint Jordanian-Egyptian higher committee meeting to determine future steps and to prepare financial and technical feasibility studies for the electrical interconnection strengthening project between Jordan and Egypt.

- **The Jordanian - Syrian - Lebanese Interconnection**: Several meetings in Amman were held in the presence of their excellencies the Ministers of the three countries Jordan, Syria and Lebanon and agreements were made to set a timeframe and clear roadmap to restart the Syrian-Jordanian electrical interconnection 250MW of line and provide Lebanon with electrical power.

- **Jordanian-Saudi interconnection (400kV)**: The necessary feasibility studies have been prepared for the Jordanian-Saudi interconnection project and a memorandum of understanding has been signed under which the two parties will initiate the preparation of the electrical interconnection project agreements and proceed with the implementation procedures of the project.

- **Jordanian-Iraqi interconnection (Eastern Passage 400kV)**: The necessary studies have been prepared to electrically connect Jordan with Iraq directly, and an electrical energy purchase contract from Jordan to Iraq has been signed.

- **Jordanian-Gulf-Egyptian interconnection**: To strengthen the existing Jordanian-Egyptian interconnection, a memorandum of understanding was signed between the National Electric Power Company, the GCC Interconnection Authority and the Egyptian Electricity Transmission Company and a global advisor was appointed to prepare the technical, financial and environmental feasibility studies.

- **Jordanian-Palestinian interconnection**: Agreements have been made between the two sides on strengthening the electrical interconnection between them and establish necessary interconnections and transformer stations to increase the amount of exported energy to 80MVA.
Residential Sector Program - A project to support the installation of solar cell systems for the residential sector.
2. In the field of conserving energy and improving its efficiency

The Ministry is working on implementing a number of projects in the various governorates of the Kingdom and the various sectors through the Jordan Renewable Energy and Energy Efficiency Fund and through the Electricity Directorate and the Rural Electrification project of the Ministry in co-operation with several partners as follows:

2.1 Residential sector program

2.1.1 A number of agreements have been signed with Islamic and commercial banks, civil society organizations and local associations (cooperative and charitable) in order to implement the program of installing solar heating systems and solar energy systems for the residential sector subsidized by %30 the cost of these systems, through the Jordan Renewable Energy and Energy Efficiency Fund, where the following has been achieved through this program since its launch in 2020:

2.1.2 A joint cooperative agreement was signed with the International Union for Conservation of Nature to install solar heating systems for poor families in the area of Sahab Brigade / Al Khashafieh and Al Manakher for a total of 200 systems of which 60 were installed during 2021, and subsidized at %100 of the cost of the systems as follows:

2.1.3 121,090 energy saving LED lighting units were distributed by the three electricity distribution companies in the Kingdom, of which 68,390 were distributed during 2021.
2.1.4 Project of installing grid connected solar energy systems at a capacity of 2kW at the expense of the rural fils for the beneficiaries of the National Aid Fund, in which during 2021:

The second phase was completed and involved 3,015 solar systems.

The tender for the third phase was assigned which will include 1,390 solar systems.

2.2 Industrial sector program
Work is being done on the industrial program in co-operation with the Jordan Chamber of Industry, where the fund supports 50% of the value of energy auditing and supports the interests of loans covering the costs of implementing the energy efficiency measures resulting from the audits, and the achievements since the start of the program until the end of 2021 were as follows:

- 84 industrial facilities participated in the program
- 47 industrial facilities conducted an energy audit for the factory
- 17 industrial facilities performed measures to increase energy efficiency in the factories according to the results of energy audit
- 17 industrial facilities obtained subsidized loans from the fund through commercial banks

2.3 Agricultural sector program
Work is being done on the agricultural sector in co-operation with the Agricultural Credit Corporation to support the installation of solar panels for small farms.

- Agricultural project with the Agricultural Credit Corporation
  Where 139 solar energy systems (solar panels) were installed for small farmers, of which 38 systems were installed during 2021.
- Implementing and installing solar energy systems which are not connected with the electrical grid
  Off Grid Photovoltaic Pumping System for an artesian aquifer in Althoppaw area.
2.4 Public and Governmental Buildings

2.4.1 Places of Worship
Continuing to implement the places of worship program with the Ministry of Awqaf and Islamic Affairs, where solar energy systems were installed for a total of 575 places of worship, of which 44 were installed during 2021, in all governorates of the Kingdom.

2.4.2 Institutions of Public Interest
Included the support project for the installation of solar panels for civil society institutions and associations that provide shelter services for individuals with special needs or are of public interest, the fund performed the initial receipt of solar panel systems during 2021 for the following associations:

- King Hussein Charitable Association
- Charitable Society of Disabled Child Care
- Royal Society for the Conservation of Nature
- Royal Academy for the Conservation of Nature
- House of the Virgin Mary Association

And an agreement was signed during 2021 to support %100 of the cost of installing solar panel systems for Aldiaa Charity Organization.

2.4.3 Main municipal buildings
A joint cooperation agreement was signed with the Italian Ministry of Environment, Land and Seas to finance the installation of solar panel systems for the main buildings of all the municipalities of the Kingdom. The project will be implemented in two phases. The first phase includes the installation of solar panels for 30 municipalities, while the phase includes the installation of solar panels for 70 municipalities.

2.4.4 Health centers
Work is underway to implement a project to install solar panel systems for 23 health centers distributed in all governorates of the Kingdom, with %100 support through the Jordan Renewable Energy and Energy Efficiency Fund.
3. In the field of Rural Electrification

The Ministry continues its efforts to deliver electricity to remote villages, rural population centers and poor families through the rural fils, as the project contributed to the development of local communities and the support of various sectors. As for the achievements in the field of rural electrification, they were as follows:

3.1 The approved bases for rural fils have been developed in order to meet the needs of service recipients, so that the beneficiary segments of rural fils are as follows:

**Houses**

- **Outside the boundaries of regulation (by the electrical network)**
  - Residential communities (3) consisting of a minimum of houses that are outside the boundaries of regulation
  - Single houses with the cost of JOD for one house 800

- **Within the regulation boundaries (by the electrical network)**
  - The homes of chaste families located within the boundaries of regulation, provided they obtain a social case study from the Ministry of Social Development

- **Outside and inside the boundaries of regulation (by renewable energy)**
  - Installing solar panel systems that are not connected to the grid for the homes of chaste families located outside the boundaries of regulation, provided that a social case study is obtained from the Ministry of Social Development
  - Installing grid connected solar panel systems for the homes of chaste families and beneficiaries of the National Aid Fund according to the approved principles from the Council of Ministers

**Graveyards**

- Lighting the streets leading to graveyards which are located outside the boundaries of regulation

3.2 The number of applications submitted for rural fils for the year 2021 reached (2,300), detailed as follows:

The number of locations that have been approved for implementation on the account of rural fils (1,747) at a financial cost of (8,113,075) Jordanian dinars

The number of locations to which the electricity supply has been completed and received is (481) sites, including (573) houses
Farms containing artesian wells, agricultural projects, charitable and cooperative associations

- Providing electricity to farms owned by citizens and containing artesian wells, farms containing artesian wells belonging to associations (charitable and cooperative), and operational artesian wells belonging to state institutions through electrical grids and solar panels systems which are not connected to the grid.

- Agricultural projects such as (cattle, sheep, poultry, and fish farms).

- Agricultural and charitable cooperative societies, provided that the association is registered in the Associations Register.

Projects relating to governmental sectors

- Houses implemented through the initiatives of His Majesty the King, which the Royal Court is constructing, houses that are being built by the Ministry of Social Development, and locations affiliated with governmental facilities, regardless of their organizational status.
A visit to the company’s oil facilities in the Madouna
4. In The Oil Sector Field

4.1 Diversifying the sources of crude oil

The total amounts of Iraqi crude oil supplied to the Hashemite Kingdom of Jordan since the beginning of supply at the start of September 2021 until the end of 2021 reached about (1.19) million barrels. (11.8) million barrels of crude oil were imported through the port of Aqaba by the Jordan Petroleum Refinery.

A memorandum of understanding for the supply of crude oil was signed between the government of the Republic of Iraq and the government of the Hashemite Kingdom of Jordan, in which the Jordanian side purchases Iraqi crude oil (Kirkuk crude oil) to meet part of its annual needs of crude oil, with no more than (10) thousand barrels per day, ± (15%) based on the monthly average of Brent crude oil and deducting (16) dollars per barrel to cover the quality difference and transportation fees.

4.2 Strategic stock of oil derivatives

Signing an agreement of storing, managing and rotating the strategic stock of petroleum derivatives with the Jordanian Logistics Company for Oil Utilities, the Ministry of Finance and the Ministry of Energy and Mineral Resources.

Work is being done to increase the storage capacities for liquidized petroleum gas in Madouna by nearly (6) thousand tons, where the implementation of the project was completed during the last quarter of 2021 and has been received by the Jordanian Logistics Company for Oil Utilities.
5. In The Field of Natural Gas

5.1 Diversifying the sources of Natural Gas

Covering the natural gas needs of generating stations by relying on imported natural gas from the Arab Republic of Egypt, Chevron Corporation, and Sheikh Al-Sabah Natural gas port in Aqaba in addition to gas produced from Al-Risha gas field.

Increasing the production capacity of the Risha Field to about (32) million cubic feet per day, as the Risha wells (50, 51, 53) were entered into production during the year 2021.

The Aqaba Development Corporation in co-operation with the Ministry of Energy and National Electric Power Company is working on developing the Sheikh Al-Sabah Natural gas port by constructing an Onshore Regasification Unit with a capacity of about 400 million cubic feet per day and working to replace the current Floating Storage and Regasification Unit (FSRU) with a Floating Storage Unit (FSU) in which it was referred to Technip E&C consulting company to prepare the engineering studies, preliminary designs and tender documents (EPC), where the project is expected to be completed and operated during 2024.

The production of the Risha gas field during the year 2021 reached about (6510) million cubic feet, at a daily rate of (17.8) million cubic feet; an increase of (22%) from the year 2020.

5.2 Encouraging the use of natural gas in all sectors

A project was commissioned to supply the industrial complex in Aqaba which is affiliated to the Jordan Phosphate Mines Company with natural gas under the patronage of His Excellency the Minister of Energy and Mineral Resources, where the project came under the framework agreement between the Jordan Phosphate Mines Company and Jordanian Egyptian Fajr Company for Natural Gas Transmission and Supply with the goal of providing the industrial complex in Aqaba with about (4) million cubic feet of natural gas per day.

Issuance of a decision from the Council of Ministers to agree on pricing natural gas produced from the Al-Risha gas field for private sector consumers to create an encouraging investment climate by attracting investors to build investment projects relying on gas from Al-Risha whether in the eastern regions of the kingdom or in regions which will be able to benefit from compressed natural gas or liquidized natural gas.

The rate of natural gas quantities consumed by industries in 2021 amounted to (24) million cubic feet per day.
Well Drilling Process with SD300 Excavator
6. In the Field of Petroleum and Oil Shale

Regarding the Hamza oil field, the following has been done:

- Issuance of the geological reserves bylaw No. (21) of 2021 issued in accordance with paragraph (d) of the natural resources law No. (19) of 2018.
- Measuring earth’s gravitational values for 111 gravitational points in the regions of Debedeeb, Batn Al-Ghoul and Al-Mudawwara south of the kingdom using gravitational field surveying equipment, taking accurate geodesic readings, and updating the general gravitational survey map of the kingdom, in addition to producing two maps with a scale of 1:50000 for Deir Abo Saed and Ramtha.
- Conducting borehole photography for a number of exploration wells in the rare earths project in the Debedeeb region and issuing the technical report for the results.

7. In the Field of Geology and Mining

7.1 Geophysical Studies
- Issuance of the geological reserves bylaw No. (21) of 2021 issued in accordance with paragraph (d) of the natural resources law No. (19) of 2018.
- Measuring earth’s gravitational values for 111 gravitational points in the regions of Debedeeb, Batn Al-Ghoul and Al-Mudawwara south of the kingdom using gravitational field surveying equipment, taking accurate geodesic readings, and updating the general gravitational survey map of the kingdom, in addition to producing two maps with a scale of 1:50000 for Deir Abo Saed and Ramtha.
- Conducting borehole photography for a number of exploration wells in the rare earths project in the Debedeeb region and issuing the technical report for the results.
- Providing geophysical study services to applicants, where the following has been done:

Issuing the technical report for the geophysical survey by the magnetotelluric method in the Risha gas field, which was requested by the National Petroleum Company in order to produce supportive geophysical maps and aid the available geophysical information and use it for the development of the Risha gas field.

Conducting a field study at the request of the Ministry of Local Administration to assess the slipping characteristic of a group of lands in Al-Thaniya and the Karak governorate.

Determining the locations of archaeological manifestations buried in the archaeological site in Petra in Al-Khazneh Square and Al-Wahajat Street at the request of the Petra Regional Authority.

7.2 General Geological Survey Project

The project aims to produce geological maps of differing scales covering all regions of the Kingdom. The project contains the distribution of rock units and geological structures, where the preparation of the geological map of Ras al-Naqab was completed at a scale of 1:50000.

7.2.1 Project for Natural Resources Exploration

7.2.1.1 Rare Earth Elements Project

Exploration studies for the second phase of the rare earth elements project in the southern part of the Debedeb region southern Jordan, where the targeted area reached 19.36 km² in which 24 exploration wells were drilled and 10 trenches were dug, with the geological stock resource of rare earth elements amounting to 223984 metric tons and 655990.26 metric tons of trace elements.

7.2.1.2 Lithium Exploration project in the Lesan area / Dead Sea

Carrying out general geochemical surveys for the formation of Hiswa. Exploration studies showed that the element of lithium is concentrated in the carnallite minerals, which are deposited at depths ranging from 149 to 163 meters, and therefore increases the possibility of detecting the lithium content at depths of up to 150 meters.

7.2.1.3 Phosphate Exploration Project / Al-Risha

Detailed Exploration studies have been started on phosphate deposits in Al-Risha area to evaluate the quality and thickness of phosphate ores and to identify the resource, in addition to determining the investment areas for mining in terms of quality and thickness of the ores.

Two wells were drilled to prospect explore the phosphate within the first phase.

7.2.2 General Geochemical Survey Project

- The highest result for copper ore in Wadi Malaga reached %5.2, while the highest result in Wadi Khaled was %2.4.
- Three samples were taken from the Faynan area from Faynan’s granite rocks unit to prospect for the element lithium. The results of the igneous incisors reached 130 ppm, which are considered hopeful results for the igneous rocks.
7.3 Investment opportunities in the field of Mineral Resources

Re-classification of the mining industries, both transformative and extractive, and reviewing it with the Energy and Minerals Regulatory Commission.

Jordan’s hosting of the Fourth Mining Conference in Amman, where the Ministry participated through a pavilion in which the investment opportunities in mineral resources, oil and gas were presented along with samples of mineral resources in Jordan and providing explanations for visitors interested in the field.

Geophysical-imaging studies (borehole soundings) in the Risha Phosphate Project.
8. In the field of maintaining the preservation and presentation of information on petroleum, oil shale and mineral resources

The Ministry of Energy and Mineral Resources is concerned with maintaining, preserving and presenting information on petroleum, oil shale and mineral resources through studies which have been carried out in various regions of the Kingdom since the end of the 1940s of the last century until this moment, through the establishment of a data bank for natural resources of projects and studies carried out by the various directorates of the Ministry, or companies contracting with them, in the field of natural resources. Maps of mining projects are also produced via Geographic Information System (GIS) softwares.

The Ministry has provided the service of supplying interested public and private institutions, companies, researchers and university students with technical reports and maps of all kinds as follows:

- **87** Petroleum Reports
- **22** Geological Reports
- **9** Digital Geologic Maps
- **88** Paper Geological Maps

9. In the field of Laboratory Analyses

The laboratories of the Ministry provide their services by conducting all the chemical and mineral analyzes and examinations of the various natural rock samples for the public and private sectors, where the following was done in 2021:

- Renewing the approval of 14 laboratory tests the Ministry carries out after the external evaluation process by the Jordanian Accreditation Unit according to the ISO standard: 2017/17025

- Number of samples and analyzes which have been conducted by the departments of the Laboratories and Quality Directorate until the end of 2021:
10. In the field of Earthquake Detections

- %100 coverage of seismic activity
- Following up on seismic detection in the kingdom, where (818) earthquakes have been detected, comprising of:

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<tr>
<td>Regional Earthquakes</td>
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<td>Local Earthquakes</td>
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- Working to prepare a seismic hazard study for the Petra region, where %50 of the natural vibration points of the study area have been completed during 2021
- Installing two new seismic monitoring stations (Al al-Bayt University station in Mafraq Governorate and Al-Asha station on the northern border in Irbid Governorate)
11. In the field of Institutional Planning & Development

11.1 Planning of The Energy Sector

- Evaluate the execution of Jordan Energy Strategy for the period (2030-2020) in cooperation with all partners. The Strategy main pillars are:

**Strategy Main Pillars**

1. Energy Security
2. Energy Availability & Affordability
3. Energy Sustainability
4. Local Energy Dependency

**Main Strategic Goals of Energy Sector**

1. Diversifying energy sources and forms
2. Increasing the share of local energy sources in the total energy mix
3. Improving energy efficiency in all sectors
4. Reducing energy cost for the national economy
5. Developing Jordan to become a regional
Tracking the progress of the Energy projects included within the government plans, such as the Executive Development Program and the government’s priority project (2021-2023) which included the following projects:

1. Completing the regional electrical interconnection projects (Egyptian, Palestinian, Iraq, and Lebanese)
2. Construction of an Onshore Regasification Unit
3. Development of Al-Risha natural gas field
4. Development of Hamza oil field
5. Attracting $ investments in the fields of mining and rare elements and the transformative industries associated with them
6. Reducing electricity costs for certain commercial sectors

- Following the progress of Granted projects.
11.2 Institutional Planning

- Reviewing and evaluating the Ministry’s strategic plan for the years (2021-2019) where the implementation rate of the strategic objectives reached (93.8%), and starting to prepare the Ministry’s strategy for the years (2024-2022) based on the results of the evaluation while taking all developments into account.

- Making the follow-up and evaluation system of the strategic plan available to all Ministry staff and automating all strategic plan reports of the follow-up and evaluation system.

11.3 Managing Relations with Partners

- Preparing a study to measure the happiness of partners, where the percentage of happy partners in 2021 reached (87.4%) compared to (87%) in 2020.

- Activating the partnership with the academic side by forming the following partnership committees between the public and academic sectors:
  1. The partnership committee between the public and academic sectors to study issues relating to the electrical system.
  2. The partnership committee between the public and academic sectors to study issues relating to renewable energy, conserving energy, and improving the efficiency of energy use.
  3. The partnership committee between the public and academic sectors to study issues relating to mineral resources.
11.4 Managing Relations with Service Recipients

Customer Happiness Office

The number of customers received by the Customer Happiness Office reached (4502 visitors) according to the following classification:

- 1,071 Renewable energy services
- 1,282 Various Inquiries
- 392 Services of the Jordan Renewable Energy and Energy Efficiency Fund
- 120 Training
- 1,415 Rural Electrification Services
- 424 Natural Gas Services
- 653 Complaints
- 36 Suggestions
- 144 Ask the Government
- 9 Praise
- 0 Communication

Where the answer rate within the specified time was %100.

Bekhedmetkom platform

The number of incoming orders to the Bekhedmetkom platform for the energy and mineral resources sector reached (842) during 2021, distributed as follows:

- 1,071 Renewable energy services
- 1,282 Various Inquiries
- 392 Services of the Jordan Renewable Energy and Energy Efficiency Fund
- 120 Training
- 1,415 Rural Electrification Services
- 424 Natural Gas Services
- 653 Complaints
- 36 Suggestions
- 144 Ask the Government
- 9 Praise
- 0 Communication
In order to serve customers, the Ministry participated in the Government Accelerators Program through two challenges:

1. Establishing an electronic platform for the procedures of the investor’s journey for three services which are as follows:

   - Request the direct proposal for oil shale or coal exploitation projects
   - Request the direct proposal for strategic minerals projects
   - Request the direct proposal for petroleum projects

2. Establishing an electronic platform for granting approvals to exempt renewable energy systems and inputs as well as energy saving inputs and systems from customs duties and the general sales tax, which includes three services:

   - Request the approval to exempt the inputs of electric power generating systems using solar energy
   - Request the approval to exempt energy saving systems, devices and equipment
   - Requesting the approval to exempt the inputs of water heating systems which use solar energy and solar panels

11.5 Electronic Services

Electronic Services

Charged services

- 148 Purchasing tender copies
- 0 Petroleum and oil shale information and studies
- 0 Seismological information and studies
- 9 Digital Maps
- 198 Laboratory examinations
- 29 Information Requests
- 540 Exempting the inputs of electric power generating systems using solar energy
- 855 Requesting the delivery of electricity on the account of rural fines
- 1,860 Requesting a solar energy system for the beneficiaries of the National Aid Fund
- 745 Exempting energy saving systems, devices and equipment
- 1 Exempting the inputs of energy saving systems
- 100 Geological maps and reports
11.6 In the Field of Knowledge and Innovation Management

1. Launching the government innovation lab program in co-operation with the King Abdullah II Center for Excellence and with support from the Jordanian-German Energy Partnership, as MEMR is considered to be the first government entity to implement the program

2. Conducting a professional training in the field of government innovation by enrolling (25) staff from MEMR and sectorial institutions, where (5) innovative projects have been worked on to come up with innovative solutions in the field of energy and mineral resources

3. Organizing & Holding (7) awareness lectures with different subjects according to the approved approach of holding lectures

4. The cognitive impact percentage of the lectures was (98%) and the attendance rate of staff was (22) staff/lecture, and the satisfaction rate of lectures was (95.6%)

5. The awareness rate of innovation among the staff in 2021 was (78.6%), whilst in 2020 it was (76.2%)

6. Responding to (30) information requests, including 28 electronic requests and (2) paper requests, and the response rate to requests was (1) day

7. The satisfaction rate of information request service’s recipients in 2021 was (98.8%), whilst in 2020 it was (97.4%)

8. Celebrating the week of the right to access to information in conjunction with the International Day For Universal Access to Information through:
   1. Distribution of awareness brochures to MEMR staff, clients and surrounding official institutions
   2. Circulating awareness messages to MEMR staff via e-mail

9. Counting & analyzing all the documents of MEMR through:
   1. Listing the available explicit documents, which were (176) documents in 2021
   2. Classification of confidential and protected documents, which were in total (231) documents
11.7 In the field of International Cooperation

The following memorandums of understanding and agreements have been signed:

1. A framework agreement was signed to develop the electrical interconnection capacities between the Jordanian Ministry of Energy and Mineral Resources and the Ministry of Electricity and Renewable Energy in the Arab Republic of Egypt.


3. Signing a memorandum of understanding with Freiberg University of Mining and Technology / Institute of Drilling Engineering and Fluid Mining / Germany and the supplementary appendix for the existing memorandum between the Ministry and the Geological Institute of Freiberg University.
A Jordanian-Iraqi cooperation protocol in the field of geology
12. Electronic Readiness

- Providing %92 of the staff with modern computers and %98 of these devices with internet and e-mail services
- Electronic automation of the training department’s procedures, where an electronic record of the training courses was prepared for each employee
- Number of electronic systems: 17 electronic systems and as follows:

**External Systems**

1. The Unified Financial System GFMIS
2. General Inventory Management System GIMS
3. Ebanking System
4. Jordanian Unified Procurement System
5. Messaging System
6. Unified Human Resources System
7. Unified Human Resources Archiving System

**Internal Systems**

1. Salaries System
2. Employee Affairs System Oracle
3. Employee Affairs System VB
4. External Ministry website
5. Internal gate
6. General Court System
7. Shift Monitoring System
8. Comprehensive Computer System
9. System of Tracking and Evaluating the Strategic Plan
10. Government Accelerators System
13. Human Resources

13.1 Workforce and Credentials

The number of Ministry employees by the end of 2021 reached (384), distributed as follows:

<table>
<thead>
<tr>
<th>Types of Roles</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Category</td>
<td>Females</td>
</tr>
<tr>
<td>57%</td>
<td>38%</td>
</tr>
<tr>
<td>Second Category</td>
<td>18%</td>
</tr>
<tr>
<td>Third Category</td>
<td>25%</td>
</tr>
</tbody>
</table>

Categories of Employees

- Leadership Functions: 3%
- Supervisory Functions: 16%
- Specialist Functions: 24%
- Support Functions: 57%

The employee happiness rate measure in 2021 reached (88%) compared to (69%) in 2020.
13.2 Training & Development

Training 86 employees out of the 95 candidate employees for mandatory and permissible promotions.

Implementation of 110 training programs during the implementation of the training plan for 2021 at a rate of approximately 90.5%.

Training (18) engineers within the engineer training program supervised by the Ministry of Public Works and Housing.

Training (18) recent graduate engineers within the agreement signed with the Jordanian Engineers Association.

Training 95 geologists through the Jordanian Geologists Association.

Six trainees were trained for a period of six months within the (I want experience) program of the Engineers Syndicate.

Training of 20 university graduates (from various university specializations applicable with the nature of the Ministry’s work) within the Ministry’s directorates.

Training 48 university students within the Ministry’s directorates.
The employee Amani Rasheed Al-Mady, from the Directorate of Planning and Institutional Development, received the award for the ideal employee in the civil service of the Specialized Category / second place.
### The 2021 Energy Sector in Numbers

<table>
<thead>
<tr>
<th><strong>8,166</strong> kte</th>
<th><strong>192</strong> kte/$1000</th>
<th><strong>1,858</strong> MJD</th>
<th><strong>1,746</strong> kWh/individual</th>
<th><strong>739</strong> kte/individual</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantities of primary energy consumed in the Kingdom</td>
<td>Energy density for with 2021 the year constant purchasing</td>
<td>Cost of imported Energy</td>
<td>Rate of Electrical Energy consumption of individuals</td>
<td>Rate of energy consumption of individuals</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>99%</strong></th>
<th><strong>28%</strong></th>
<th><strong>26%</strong></th>
<th><strong>73%</strong></th>
<th><strong>2,445.7</strong> MW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of securing the electrical energy supply</td>
<td>Contribution percentage of local sources to electricity generation</td>
<td>Contribution percentage of renewable energy to electricity generation</td>
<td>Contribution percentage of natural gas to electricity generation</td>
<td>Total installed capacity of power generation projects from renewable energy sources</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>1,498.1</strong> MW</th>
<th><strong>947.6</strong> MW</th>
<th><strong>4</strong></th>
<th><strong>100%</strong></th>
<th><strong>45</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity of projects from which the generated electric power is sold to electrical companies</td>
<td>Capacity of renewable energy systems projects owned by consumers to cover their consumption by using net metering and energy meters</td>
<td>Number of natural gas supply sources</td>
<td>Percentage of securing the supply of crude oil and oil derivatives</td>
<td>Number of supply days for crude oil stock</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>34</strong></th>
<th><strong>60</strong></th>
<th><strong>60</strong></th>
<th><strong>60</strong></th>
<th><strong>340</strong> Million ft³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of supply days for liquidized petrol gas stock</td>
<td>Number of supply days for petrol 90 stock</td>
<td>Number of supply days for petrol 95 stock</td>
<td>Number of supply days for diesel stock</td>
<td>Average quantities of natural gas consumed per day for the generation of electric power from the four sources available</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>11.8</strong> Million Barrels of Oil</th>
<th><strong>1.19</strong> Million Barrels</th>
<th><strong>427</strong> Barrels</th>
<th><strong>32</strong> Million ft³</th>
<th><strong>24</strong> Million ft³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantities of crude oil that were imported through the port of Aqaba</td>
<td>Quantities of naptha oil imported to the Hashemite Kingdom of Jordan</td>
<td>Daily production in Hamza field</td>
<td>Productive capacity of Al-Risha gas field</td>
<td>Average daily quantities of consumed natural gas in industries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>5,542</strong></th>
<th><strong>38</strong></th>
<th><strong>44</strong></th>
<th><strong>68,390</strong></th>
<th><strong>84</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of solar energy systems/kilowatts (2) with a capacity of installed for rural families benefiting from national aid at the expense of EPUA in the first and second phases</td>
<td>Number of renewable energy systems (solar panels) installed for small farmers within the agricultural sector project with the Agricultural Credit Corporation</td>
<td>Renewable energy systems installed within the houses of worship program with the Ministry of Awqaf and Islamic Affairs and Holy Places</td>
<td>Number of lighting units distributed through electricity distribution companies</td>
<td>Industrial facilities that participated in the industrial program in co-operation with the Jordan Chamber of Industry</td>
</tr>
</tbody>
</table>
### Key Figures

<table>
<thead>
<tr>
<th>47</th>
<th>17</th>
<th>1,747</th>
<th>2,537</th>
<th>818</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of factories which conducted energy audits</strong></td>
<td><strong>Number of industrial facilities that implemented energy efficiency improvement measures according to the outputs of energy audits</strong></td>
<td><strong>Number of sites that have been approved for implementation at the expense of rural fihs</strong></td>
<td><strong>Number of chemical and mineral analyses and examinations</strong></td>
<td><strong>Number of earthquakes which have been detected</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>98.8%</th>
<th>5</th>
<th>17</th>
<th>7</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Happiness rate for information request service recipients</strong></td>
<td><strong>Number of automated electronic payment services</strong></td>
<td><strong>Number of electronic systems in the Ministry</strong></td>
<td><strong>Number of awareness lectures</strong></td>
<td><strong>Employees from the Ministry who received specialized training in innovation management at first and second levels</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>87.4%</th>
<th>92.5%</th>
<th>95%</th>
<th>96%</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Happiness rate for partners</strong></td>
<td><strong>Happiness rate for service recipients</strong></td>
<td><strong>Budget performance ratio (running expenses)</strong></td>
<td><strong>Budget performance ratio (capital expenditure)</strong></td>
<td><strong>Number of information requests</strong></td>
</tr>
</tbody>
</table>

### Additional Data

- **1 Day**: Average time for replying to information requests.
The 2021 Energy Sector in Numbers

Crude oil and oil derivative imports during the period (2017-2021) -Thousand tons-

<table>
<thead>
<tr>
<th>Year</th>
<th>Crude oil</th>
<th>Liquefied gas</th>
<th>Diesel</th>
<th>Petrol</th>
<th>Aviation fuel</th>
<th>Kerosene</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>2795</td>
<td>368</td>
<td>1029</td>
<td>923</td>
<td>125</td>
<td>-</td>
</tr>
<tr>
<td>2018</td>
<td>2366</td>
<td>357</td>
<td>1145</td>
<td>964</td>
<td>67</td>
<td>-</td>
</tr>
<tr>
<td>2019</td>
<td>2321</td>
<td>432</td>
<td>963</td>
<td>977</td>
<td>305</td>
<td>-</td>
</tr>
<tr>
<td>2020</td>
<td>2074</td>
<td>409</td>
<td>910</td>
<td>773</td>
<td>0</td>
<td>4.8</td>
</tr>
<tr>
<td>2021</td>
<td>1757</td>
<td>377</td>
<td>914</td>
<td>899</td>
<td>16</td>
<td>23</td>
</tr>
</tbody>
</table>

Changes in consumption of oil derivatives during the period (2017-2021) -Thousand tons-

<table>
<thead>
<tr>
<th>Oil derivatives</th>
<th>Liquefied gas</th>
<th>Petrol</th>
<th>Aviation fuel</th>
<th>Kerosene</th>
<th>Diesel</th>
<th>Fuel oil</th>
<th>Asphalt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2017</td>
<td>431</td>
<td>1431</td>
<td>396</td>
<td>88</td>
<td>1859</td>
<td>505</td>
</tr>
<tr>
<td></td>
<td>2018</td>
<td>429</td>
<td>1410</td>
<td>412</td>
<td>69</td>
<td>1672</td>
<td>515</td>
</tr>
<tr>
<td></td>
<td>2019</td>
<td>478</td>
<td>1411</td>
<td>462</td>
<td>95</td>
<td>1482</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>2020</td>
<td>463</td>
<td>1139</td>
<td>137</td>
<td>83</td>
<td>1313</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>438</td>
<td>1342</td>
<td>211</td>
<td>77</td>
<td>1365</td>
<td>176</td>
</tr>
</tbody>
</table>

Local production of crude oil and gas in 2021

<table>
<thead>
<tr>
<th>Data</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Daily rate of production for Hamza field</td>
<td>427 Barrels</td>
</tr>
<tr>
<td>2 Generative capacity for Al-Risha field</td>
<td>32 million ft³ / day</td>
</tr>
<tr>
<td>3 Rate of gas production from Al-Risha field</td>
<td>17.8 million ft³ / day</td>
</tr>
</tbody>
</table>
Developments in electrical energy production and the maximum load of the electrical system during the period (2017-2021)

<table>
<thead>
<tr>
<th>Year</th>
<th>Maximum load MW</th>
<th>Generated Electrical Energy kWh</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>3320</td>
<td>20793.5</td>
</tr>
<tr>
<td>2018</td>
<td>3205</td>
<td>20476</td>
</tr>
<tr>
<td>2019</td>
<td>3380</td>
<td>20995.8</td>
</tr>
<tr>
<td>2020</td>
<td>3630</td>
<td>20952.8</td>
</tr>
<tr>
<td>2021</td>
<td>3770</td>
<td>22134</td>
</tr>
</tbody>
</table>

The sectoral consumption percentage of electrical energy during the period (2017-2021)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Year</th>
<th>Residential and public buildings %</th>
<th>Industrial %</th>
<th>Commercial and hospitality %</th>
<th>Agricultural water pumping %</th>
<th>Street lighting %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>45</td>
<td>22</td>
<td>15</td>
<td>16</td>
<td>2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>45</td>
<td>22</td>
<td>15</td>
<td>16</td>
<td>2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>46</td>
<td>20</td>
<td>16</td>
<td>15</td>
<td>3</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>49</td>
<td>19</td>
<td>14</td>
<td>16</td>
<td>2</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td>48</td>
<td>21</td>
<td>15</td>
<td>14</td>
<td>2</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Financial data for the Ministry of Energy and Mineral Resources in 2021

<table>
<thead>
<tr>
<th>Description</th>
<th>Allocation Dinars</th>
<th>Expenditure Dinars</th>
<th>Percentage expenditure %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Running expenses</td>
<td>5,811,000</td>
<td>5,504,836</td>
<td>95%</td>
</tr>
<tr>
<td>Capital expenditures</td>
<td>14,585,000</td>
<td>14,015,653</td>
<td>96%</td>
</tr>
<tr>
<td>Total</td>
<td>20,396,000</td>
<td>19,520,489</td>
<td>96%</td>
</tr>
</tbody>
</table>
Service Centers in the Ministry of Energy and Mineral Resources

North Region Rural Electrification Office
Tel: 0277458989

Central Region Rural Electrification Office
Tel: 065803050 Ext. 1183 or 1184
Fax: 065863321

South Region Rural Electrification Office
Tel: 0322387215
# Ministry of Energy and Mineral Resources Services in 2021

## Electricity delivery services for approved segments (inside/outside the organization) at the expense of rural fils

1. Delivery of electricity from the existing networks to the beneficiaries according to the approved bases on the calculation of rural fils (inside/outside the organization)
2. The delivery of electricity to artesian wells located outside the limits of regulation by electric networks or by using solar energy systems not connected to the grid at the expense of the rural fils
3. Installation of solar energy systems for beneficiaries of the National Aid Fund and poor families at the expense of rural fils
4. The delivery of electricity to individual homes located outside the limits of regulation using solar energy systems that are not connected to the grid at the expense of the rural fils

## Training of University Students and Recent Graduates Service

1. Training university students and recent graduates in the organizational units of the Ministry

## Laboratory Examinations

1. Requesting laboratory examinations

## Renewable Energy Services

1. Requesting the approval to exempt the inputs of electrical energy production systems using solar energy
2. Requesting the approval to exempt energy saving systems, devices and equipment
3. Requesting the approval to exempt the inputs of water heating systems using solar energy
4. Granting the approval to exempt the inputs of bioenergy systems
5. Granting the approval to exempt energy-saving systems (insulation materials)

## Geological Information and Map Services

1. Requesting information about petroleum and mineral resources and data about the petroleum archives
2. Providing geological maps and reports
3. Purchasing digital maps
Renewable Energy Endorsement and Rationalization Services

1. Granting The License To Perform The Activity Of Energy Auditing
2. Renewing the energy audit license
3. Energy auditing for government buildings
4. Providing the energy audit service to small and medium industries and implementing the outputs of the audit
5. Providing the energy audit service to hotels

Energy and Mineral Resources Information Request Services

1. Requesting information about energy and mineral resources

Seismological Information & Studies Services

1. Seismological information and studies

Geological Studies & Surveys Services

1. Geological surveys
2. Geophysical studies
3. Petrographic studies

Natural Gas Services

1. Requesting the approval for facility licenses on land plots which intersect or are within the vicinity of the natural gas pipeline
2. Granting the approval for sales contracts or splitting expropriated plots of land which are owned in parts for the gas pipeline project
3. Requesting the approval to include plucks and waste resulting from land acquisition for the natural gas pipeline project and which cannot be utilized
Electronic services gate for the Ministry of Energy and Mineral Resources

Electronic Payment Services
1. Laboratory Examinations
2. Seismological information and studies
3. Digital Maps
4. Petroleum & oil shale information and studies
5. Purchasing Tender Copies

Free Electronic Services
1. Requesting information about energy and mineral resources
2. Delivering electricity at the expense of the rural film
3. Installing solar panel systems for beneficiaries of the National Aid Fund
4. Renewable energy system exemptions (5 templates)
5. Training (recent graduates and students)
6. Granting the approval for sales contracts on expropriated plots of land which are owned in parts
7. Approval to include the pumping and waste resulting from the acquisition of lands for the gas pipeline project
8. Granting/Renewing an Energy Audit License (Category One, Category Two, Category Three) (5 templates)
9. Energy auditing for small and medium industries
10. Energy auditing for hotels