Country Office Jordan

KONRAD ADENAUER STIFTUNG

Jordan's Gas Discoveries and Its Changing Energy Landscape

Domestic and Regional Economic Implications

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List of Abbreviations

ADC	Aqaba Development Corporation
AGP	Arab Gas Pipeline
BCM / bcm	Billion Cubic Metres
Bscf	Billion Standard Cubic Feet
BP	British Petroleum
CNG	Compressed Natural Gas
EMRC	Energy and Minerals Regulatory Commission
EUR	Estimated Ultimate Recovery
FPSO	Floating Production Storage and Offloading
FSRU	Floating Storage and Regasification Unit
GDP	Gross Domestic Product
GIIP	Gas Initially In Place
GMIC	Government Investment Management Company
IFI	International Financial Institution
IMF	International Monetary Fund
JD	Jordanian Dinar
JEMP	Jordan Energy Master Plan
JNPC	Jordan National Petroleum Company
JNRA	Jordan Natural Resources Authority
JSMO	Jordan Standards and Metrology Organization
LNG	Liquefied Natural Gas
MBTU	Million British Thermal Units
MCF	Million Cubic Feet
MEMR	Ministry of Energy and Mineral Resources
MMcfd	Million Cubic Feet per Day
MoE	Ministry of Environment
MoF	Ministry of Finance
MTPA	Million Tonnes Per Annum
MW	Megawatt
NEPCO	National Electric Power Company
RF	Recovery Factor
RGF	Risha Gas Field
USD	United States Dollar

Executive Summary

For decades, Jordan has borne the burden of high energy import dependence — a structural vulnerability that has weighed on its trade balance, constrained its fiscal space, and exposed its economy to the volatility of regional geopolitics. Recent developments in the natural gas sector, however, may present a genuine and potentially transformative opportunity to reshape this trajectory.

Jordan's GDP growth has remained positive but modest, estimated at approximately 2.7-2.8% in 2025 according to the IMF, against a backdrop of persistent regional instability and global trade turbulence. Energy import dependence, which historically exceeded 90% of total energy needs, has been reduced to around 70-75% through the introduction of renewable energy and domestic power projects. Nevertheless, energy remains one of the largest drivers of the trade deficit and a source of ongoing macroeconomic vulnerability.

The Risha Gas Field (RGF) in northeastern Jordan, discovered in 1986 and producing since 1989, has undergone a significant reassessment of its resource potential. A comprehensive geophysical study covering 3,400 square kilometres, conducted in collaboration with WesternGeco/Schlumberger and validated by the French firm Beicip Franlab, has estimated total Gas Initially In Place (GIIP) at between 9,390 and 14,600 billion standard cubic feet (Bscf), with a best estimate of 11,990 Bscf. Applying recovery factors of 30-43%, the Estimated Ultimate Recovery (EUR) ranges from 2,835 to 6,350 Bscf, with a best estimate of 4,675 Bscf — equivalent to approximately 30 years of Jordan's current total gas consumption. Production capacity has already reached 50 MMcfd and is targeted to rise to 78 MMcfd in 2026, with an ambitious long-term goal of exceeding 400 MMcfd by 2030, underpinned by a strategic agreement with the Kuwait Drilling Company to drill 80 new wells over three years and an estimated investment requirement of over JD 2 billion.

The central short-term challenge is not production but utilisation and transportation. In the short term, Compressed Natural Gas (CNG) road transport and small-scale LNG are being deployed as transitional delivery mechanisms, supported by competitive pricing of USD 3.6 per MBTU to attract industrial consumers and encourage fuel-switching from diesel and heavy fuel oil. The most transformative long-term solution is the 330-kilometre pipeline connecting Risha to the Arab Gas Pipeline at *Al Khanasri* in Mafraq Governorate — the single most infrastructure investment needed to unlock national distribution and regional export potential.

The paper identifies a diverse portfolio to enhance demand for Risha gas covering several strategic initiatives:

- Gas-fired power generation for export to Iraq and southern Syria, anchored by 'Take or Pay' agreements, with project costs estimated at USD 700 million to USD 1 billion for a 1,000 MW plant.
- Large-scale data centres combining gas-fired and renewable generation, capitalising on Jordan's competitive energy costs and improving digital infrastructure.
- Ammonia and fertiliser industries, leveraging both Risha gas and the newly identified eastern Jordan phosphate deposit of over 726 million metric tons, creating a vertically integrated value chain.
- Petrochemicals and high-value chemical industries — methanol, polymers, synthetic fuels, and pharmaceuticals — as export-oriented diversification drivers. Energy-intensive traditional industries such as cement, steel, and ceramics, where a shift to gas supply would materially enhance cost competitiveness and export performance.
- Residential and commercial city gas networks in Amman and Zarqa, covering approximately 61 kilometres of distribution infrastructure, reducing dependence on imported liquid fuels.
- Transportation sector CNG vehicles, building on the existing policy permitting gas-engine truck imports and the growing shift toward cleaner mobility — with electric and hybrid vehicles already comprising 20% of the fleet as of 2024.

Institutional Framework and Key Stakeholders

Effective realisation of Risha's potential depends on a well-functioning institutional ecosystem. Government and regulatory bodies — principally MEMR, the Energy and Minerals Regulatory Commission (EMRC), the Ministry of Finance (MoF), and the Ministry of Environment (MoE) — define the strategic, regulatory, and fiscal framework. The Jordan National Petroleum Company (JNPC) plays a dual role as both commercial actor and national policy instrument, simultaneously managing exploration risk and serving as custodian of the field's geological data and institutional expertise. The National Electric Power Company (NEPCO) remains the dominant off-taker whose contractual commitments are central to project bankability. Private and regional investors — particularly Gulf-based actors with both commercial and strategic motivations — are essential sources of capital, technology, and expertise. International financial institutions such as the World Bank and IFC play a critical enabling and disciplining role, enhancing project credibility and crowding in private investment through guarantees and governance conditionality. Civil society and local communities, while limited in formal decision-making power, carry significant influence over social licence, and their early and sustained engagement is a prerequisite for project sustainability.

Regional Implications

Jordan's gas development ambitions carry significant regional implications. The country's geographic centrality — at the intersection of the Levant, the Arabian Peninsula, and North Africa — combined with its existing Arab Gas Pipeline infrastructure, bilateral energy agreements with Egypt, Israel, Iraq, and Syria, and a track record of energy diplomacy, positions it as a viable regional energy hub. The 2026 energy agreement with Syria, under which Jordan supplies gas to power plants in southern Syria including the Al-Nasiriyah thermal plant, marks a concrete step toward establishing Jordan as an originating supplier — not merely a transit corridor — within the regional gas network.

The recent disruption of Israeli gas supplies during the US-Israel-Iran conflict, and the coordinated use of the Energos Force FSRU at Aqaba to maintain supply continuity for both Egypt and Jordan, demonstrated both Jordan's vulnerability to external shocks and the resilience value of its diversified import infrastructure. Looking northward, the prospect of Jordanian gas reaching Lebanon — a country in chronic energy crisis — through the Arab Gas Pipeline via Syria, and ultimately connecting to Turkey's transit network toward European markets, represents the most transformative long-term scenario. While contingent on Syrian political stabilisation and infrastructure rehabilitation.

I. Introduction

In recent years the Jordanian economy has been maintaining a slow growth trajectory in GDP that remains under 3 % annually. In 2025 growth has been estimated at approximately 2.7-2.8% according to the IMF.[1] Such growth remains positive despite persistent regional instability and global trade turbulence. Jordan's recent gas discoveries — particularly the expansion of the Risha gas field — and renewed exploration efforts could mark a turning point in the country's long-standing struggle with energy import dependence. Until the early 2000s, Jordan imported more than 90% of its energy; with the introduction of renewable energy and some domestically based electricity projects such as the oil shale *Attarat* project, this dependency has been reduced to around 70-75%.

Despite the improvement, such a high dependency on imports turns energy into one of the largest drivers of the trade deficit, and the Jordanian economy remains vulnerable to external energy price fluctuations.

This paper analyses the latest gas discoveries and developments, institutional arrangements, and assesses their domestic and regional economic potentials, proposing policy options to maximise benefits within a heightened regional geopolitical risk environment.

II. Recent Developments

Jordan's natural gas sector is undergoing a significant transformation, driven by a combination of expanding domestic production and strategic infrastructure development. Currently, Jordan secures most of its natural gas from international sources via pipeline import from the north through a long-term contract with Israel/Chevron and from the south through the Arab Pipeline from Egypt. Daily consumption is estimated at about 330 Million Cubic Feet per Day (MMcfd), most of which is used for electricity generation.[2]

At the infrastructure level, Jordan is preparing for a significant transition. The Ministry of Energy and Mineral Resources (MEMR), along with the Aqaba Development Corporation (ADC), is overseeing the development of the country's first onshore LNG regasification terminal, the Sheikh Sabah LNG Terminal, which is expected to be commissioned by late 2026. This new facility is designed to handle a capacity of

[1] International Monetary Fund (IMF), "Jordan—Country Information," *International Monetary Fund*, 2026, https://www.imf.org/en/countries/jor (accessed 12 Feb. 2026).
[2] NEPCO Annual Report 2024.

up to 700 MMcfd. Once operational, it is anticipated that the permanent onshore terminal will replace the Floating Storage and Regasification Unit (FSRU), offering better efficiency, higher regasification capacity, and greater operational stability for Jordan's natural gas imports.

The Energos Eskimo FSRU was previously stationed in Jordan at the Sheikh Sabah Al-Ahmad Port in Aqaba since 2015 and is currently operating in Egypt, connected to the Arab Gas Pipeline between Jordan and Egypt in order to provide Jordan with natural gas whenever needed. In 2023, Jordan and Egypt formalised an energy co-operation agreement, allowing Egypt to utilise the FSRU for the remainder of its charter with Jordan's National Electric Power Company (NEPCO), which concluded in 2025.[3]

In a related move, in mid-2025 Jordan sub-chartered an additional FSRU (Energos Force). This unit serves as a supplementary measure to ensure uninterrupted LNG supply during the transition to the onshore terminal or to meet increasing seasonal or industrial demand. This development reinforces Jordan's commitment to maintaining flexible and resilient LNG import capabilities. Part of this capacity could be dedicated to neighbouring countries such as Syria or Lebanon.[4]

The Energos vessel was brought into the picture during the recent disruption of LNG from Israel, arising from the US-Israel conflict with Iran. Egypt and Jordan coordinated to restart the Energos Force regasification ship anchored at Aqaba port, to support gas supplies to both Egypt and Jordan following the cutoff of Israeli gas. Gas supply from Israel has since resumed following the recommencement of operations at the Leviathan and Karish gas fields.[5]

Energy has long been a defining factor in the performance of Jordan's productive sectors. During certain periods, most notably in the 1990s, Jordan benefited from concessional oil supplies from Iraq and selected Gulf states, enjoying preferential pricing arrangements. Although these terms provided meaningful economic relief at the time, they inadvertently undermined energy efficiency and fostered unsustainable patterns of energy consumption. This legacy is reflected in Jordan's relatively high energy intensity — a measure of how much energy is consumed per unit of economic output.[6] A high energy intensity ratio signals that an economy requires

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[3] Riviera Maritime Media, "FSRU *Energos Eskimo* Secures 10-Year EGAS Charter," *Riviera*, 2024, https://www.rivieramm.com/news-content-hub/news-content-hub/fsru-energos-eskimo-secures-10-year-egas-charter-83301 (accessed 4 Apr. 2026).

[4] Interview with Eng. Suffyan Battayneh ; CEO of NEPCO. 12 March 2026.

[5] Calcalist Tech, *article*, 2026, https://www.calcalistech.com/ctechnews/article/rkhyg0012wx (accessed 4 Apr. 2026).

[6] Jordan benefited from a preferential oil supply arrangement with Iraq during the period 1990–2003, under the rule of Saddam Hussein. Following the 1990–1991 Gulf War and the imposition of UN sanctions on Iraq, Baghdad supplied Jordan with approximately 80,000–100,000 barrels of crude oil and petroleum products per day. Around half of this volume was provided as a grant, while the remainder was sold at prices significantly below interna-

disproportionate energy input for each unit of GDP generated, pointing to structural inefficiencies or an over-reliance on energy-intensive industries. Although Jordan has made progress in improving energy efficiency over the past decade, considerable scope for further gains remains.[7]

III. Recent and Ongoing Gas Discoveries in Jordan

The Risha Gas Field (RGF), located in northeastern Jordan near the Iraqi border, was discovered in 1986, initially classified as a tight gas reservoir. Actual production started in 1989. The small amount produced was totally consumed by the Risha Power Plant, located 330 kilometres east of Amman near the field.

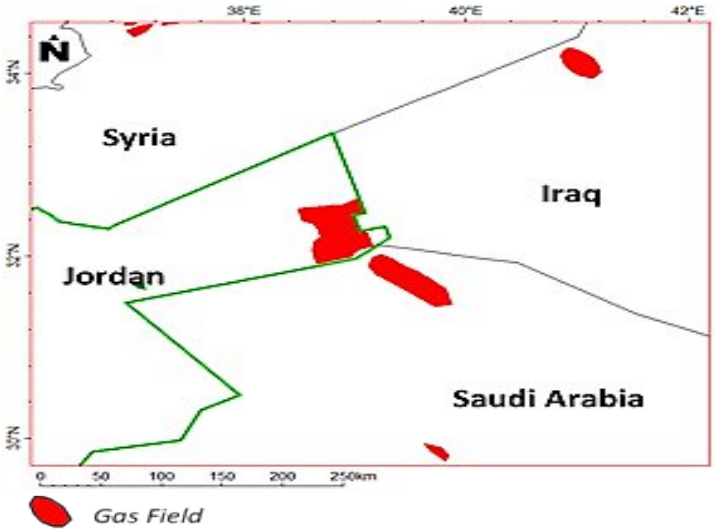

Figure 1 Source: Jordan JNPC

Since its establishment in 1989, JNPC has operated under a distinct pricing arrangement with NEPCO, which — through its power plant — served as the sole purchaser of extracted gas. Daily production volumes from the field ranged between 10 and 17 million cubic feet. JNPC carries responsibility for exploration, drilling, and the broader development of upstream activities at the Risha field. The company was spun off from the Jordan Natural Resources Authority (JNRA) and incorporated as a public shareholding company, with the government holding a 99.92% stake and the remaining share owned by Safwa Bank. The rationale for establishing JNPC as a

tional market levels. The oil was transported overland by tanker trucks to Jordan's refinery in Zarqa. The arrangement ended after the 2003 U.S.-led invasion of Iraq, after which Jordan began importing oil at market prices.

[7] GDP per unit of energy use, captures how much economic value is generated per unit of energy consumed. In 2022, Jordan generated about 13.16 of GDP per kilogram of oil equivalent, below the global average of roughly 15.09 for a broad set of countries.

corporate entity was to enable it to operate on a commercial footing and to facilitate partnerships with domestic and foreign private sector companies.

In 2010, JNPC entered into an agreement with British Petroleum (BP), bringing the international energy major on board as a strategic partner in the Risha field concession. Under the terms of this agreement, BP committed to scaling up daily production from 12 to 50 million cubic feet within three years, with reported investment of approximately USD 150 million. However, by 2014, BP opted to relinquish its stake and return the concession to JNPC, citing the geological complexity of the reservoir, its limited recoverable reserves, and the declining commercial attractiveness of the field amid falling gas prices. Notably, production levels before and after BP's involvement remained broadly unchanged.[8]

Following BP's withdrawal, JNPC pressed ahead with its own exploration efforts. Studies carried out by Schlumberger and other international consultancies estimated total gas reserves at approximately 14.6 trillion cubic feet, with recoverable volumes projected to exceed 4 trillion cubic feet. It is worth noting that the Schlumberger study, as cited by JNPC, covered only 40% of the total Risha field area, suggesting that the actual resource base could be considerably larger.

By the close of 2024, the field's production capacity had reached 50 million cubic feet per day. Activity has since intensified, with 2025 seeing 10 wells drilled by the Kuwait Drilling Company and a further four wells to be undertaken by the Kuwait National Petroleum Company. JNPC's development plan targets an increase in daily gas production to 78 million cubic feet as a first-phase milestone in 2026. JNPC and the Kuwait Drilling Company have entered into a strategic agreement to drill 80 new wells across the Risha field over a three-year period, with the overarching goal of pushing production beyond 400 million cubic feet per day by the end of 2030. [9]

A comprehensive study covering 3,400 square kilometres has been conducted in collaboration with WesternGeco/Schlumberger, with results validated by the French firm Beicip Franlab. Minister of Energy and Mineral Resources Saleh Kharabsheh unveiled the results at a press conference, noting that while initial findings are promising, their contribution to the national economy depends on detailed assessments of economic viability. [10]

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[8] Energy Intelligence, "BP Withdraws From Jordan Project," *Energy Intelligence*, 2026, https://www.energyintel.com/0000017b-a7c7-de4c-a17b-e7c7f4ce0000.

[9] Based on a study conducted by JNPC.

[10] *The Jordan Times*, "Energy Minister Reveals Promising Results on Natural Gas Reserves at Risha Field," 2019, https://jordantimes.com/news/local/energy-minister-reveals-promising-results-natural-gas-reserves-risha-field (accessed 17 Jan. 2026).

The Beicip study categorised reserves into high, medium, and low estimates based on international standards, with the medium estimate regarded as the most reliable.

Classification	GIIP & EUR		
	Low Bscf	Best Bscf	High Bscf
GIIP in total reservoir	9,390	11,990	14,600
Recovery Factor (RF)	30%	39%	43%
Estimated Ultimate Recovery Reservoir (EUR)	2,835	4,675	6,350

Table 1: Risha Gas Field Reserve Esimates - Source: MEMR 2026

The Gas Initially In Place (GIIP) holds between 9,390 Bscf in the low (conservative) scenario and 14,600 Bscf in the high (optimistic) scenario, with a best estimate of 11,990 Bscf. The Recovery Factor (RF) ranges from 30% in the low case to 43% in the high case, with a best estimate of 39%. The Estimated Ultimate Recovery (EUR) — the product of GIIP multiplied by the Recovery Factor — ranges from 2,835 Bscf in the low case to 6,350 Bscf in the high case, with a best estimate of 4,675 Bscf.

Jordan's current national gas consumption runs at roughly 4.4 BCM per year (approximately 155 Bscf/year). The best-estimate EUR of 4,675 Bscf would therefore represent roughly 30 years of Jordan's current total gas demand — a strategically significant domestic resource if fully developed. However, unlocking the full EUR potential would require substantial investment in drilling, compression infrastructure, and pipeline capacity. According to the Minister, JNPC is revising its development plans, which include expanding infrastructure, intensifying drilling efforts, and establishing gas transportation networks.[11] These projects are expected to cost over JD 2 billion and could take up to a decade to complete according to the initial estimates by JNPC.

[11] *The Jordan Times*, "Energy Minister Reveals Promising Results on Natural Gas Reserves at Risha Field," 2019, https://jordantimes.com/news/local/energy-minister-reveals-promising-results-natural-gas-reserves-risha-field (accessed 17 Jan. 2026).

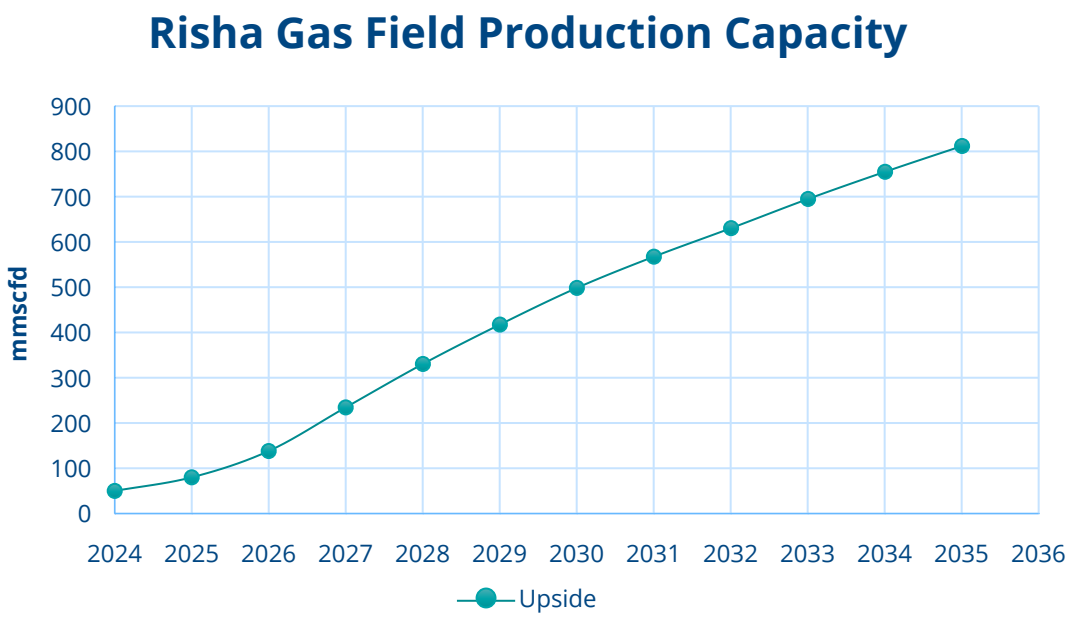

Figure 2 - Source: JNPC, 2026

Should production targets be met, the principal challenge will shift to how the extracted gas is transported and fully absorbed by the market. At present, gas sales from the field for power generation purposes stand at 17 MMcfd, leaving a substantial portion of extracted volumes without an end market. To stimulate demand and reduce this surplus, JNPC has extended long-term supply arrangements to selected distribution and gas services companies, offering fixed and competitively priced contracts as an incentive for broader uptake.

IV. Development Trajectory and Gas Transportation

The development trajectory of the RGF unfolds across two timeframes, each defined by a different set of constraints, instruments, and strategic objectives. Understanding this distinction is essential to appreciating both the immediate commercial challenges facing JNPC and the longer-term transformation it is seeking to bring about.

IV.1 The Short-Term Imperative: Stimulating Consumption Through Available Means

In the near term, JNPC's primary challenge is not production — it is utilisation. With daily gas sales for power generation currently standing at 17 MMcfd, and production capacity already at 50 MMcfd and rising, a growing volume of extracted gas risks remaining without an end market. This imbalance is commercially unsustainable and undermines the investment case for accelerated field development.

In the absence of a pipeline connecting the Risha field to major consumption centres, JNPC must rely on currently available transportation modalities. Two prin-

cipal options are available. The first is Compressed Natural Gas (CNG), which involves compressing gas at the field and transporting it by road tankers to industrial consumers — already operational through the Jordan Gas Company and newly established distribution entities such as Watani Company and Pro Gas. The second option is Liquefied Natural Gas (LNG), which involves installing a liquefaction unit at the Risha field and transporting the chilled gas via small tankers to industrial consumers. While this approach extends the geographic reach of gas distribution, it carries higher capital costs, more demanding safety requirements, and greater operational complexity. Uni Gas Company already operates based on this mode of transportation.[12]

To incentivise uptake, JNPC has adopted a commercial strategy centred on preferential long-term pricing arrangements, offering gas at USD 3.6 per MBTU — significantly below the prevailing global market rate of USD 7.5-8.5 per MBTU. These arrangements are structured on a medium- to long-term basis to provide price predictability, de-risk investment decisions, and build a stable consumer base. Alongside pricing incentives, JNPC's short-term strategy involves targeted engagement with industrial companies to encourage the substitution of heavy fuel oil and diesel with gas, a transition that requires upfront capital investment and may benefit from complementary policy interventions such as tax incentives or concessional financing.

IV.2 The Long-Term Solution: The Risha-to-Arab Gas Pipeline Connection

The definitive solution to the transportation and utilisation challenge lies in the construction of the 330-kilometre pipeline connecting the Risha field to the Arab Gas Pipeline at *Al Khanasri* in Mafraq Governorate. This infrastructure investment represents the most important enabler of Risha's long-term development potential. Once operational, the pipeline would reduce the cost, logistical complexity, and safety constraints associated with road-based CNG and LNG transportation, replacing them with a continuous, high-capacity, and low-cost delivery mechanism capable of serving the full spectrum of demand centres across Jordan and beyond.

Critically, the pipeline would integrate Jordanian gas into the Arab Gas Pipeline network, opening the door to regional export opportunities toward Syria, Lebanon, and potentially Turkey — transforming JNPC from a domestic supplier into a contributor to the region's gas supply architecture. The pipeline would also fundamentally alter the economics of industrial development in the vicinity of the Risha field, including the industrial zone concept being explored in the border area between Jordan and

[12] Unigaz, "Jordan," *Unigaz*, 2026, https://www.unigaz.net/en/jordan

Iraq. In this sense, the pipeline is not merely a transportation asset but a catalyst for a wider industrial and economic development agenda.

IV.3 Managing the Transition

The interval between the present short-term phase and the eventual commissioning of the pipeline is a critical period that demands careful management. JNPC must sustain momentum in production development, build a sufficient consumer base through CNG and LNG channels to demonstrate commercial viability, and maintain the financial and institutional capacity needed to see the pipeline project through to completion. At the same time, the government must create an enabling environment — through supportive regulation, infrastructure financing, and appropriate incentive frameworks — that accelerates the transition from road-based distribution to pipeline delivery.

Managing this transition with consistency of policy, and adequate resourcing is perhaps the central strategic challenge confronting JNPC.

V. Potential Utilisation of Risha Gas: Sectors, Opportunities, and Strategic Pathways

At present, the bulk of gas extracted from the Risha field is consumed by NEPCO for power generation, with a growing number of supply agreements and memoranda of understanding concluded with industrial buyers including Jordan Chlorine, Unigaz, Central Gas, and ORE. JNPC has accordingly identified a range of sectors across which gas consumption could be significantly broadened, though realising this potential will require overcoming the twin constraints of geographic remoteness and underdeveloped supporting infrastructure.

V.1 Gas-Fired Power Generation for Regional Export

One of the most immediately scalable opportunities involve the development of a dedicated gas-fired power plant with a capacity of approximately 1,000 MW, with output earmarked for export to Iraq and/or southern Syria — two markets facing acute and persistent electricity shortages. The commercial structure would centre on a 'Take or Pay' agreement with the respective governments, providing guaranteed revenue streams that effectively eliminate offtake risk. The estimated project cost falls in the range of USD 700 million to USD 1 billion, and would require commensurate upgrades to grid interconnection capacity across borders.

V.2 Data Centres: A High-Demand Emerging Opportunity

In the event that electricity export arrangements prove difficult to finalise, an alternative high-consumption pathway has recently emerged. JNPC has signed a memorandum of understanding with a prospective investor in a large-scale data centre.

The proposed model combines conventional gas-fired generation with renewable energy sources, creating a hybrid power supply configuration that maximises resource utilisation while improving the overall carbon profile of the operation. Jordan's combination of competitive gas prices and improving renewable capacity could position it as an attractive destination for energy-intensive digital infrastructure investment.

V.3 Ammonia and Fertiliser Industries

The production of ammonia — both conventional and green variants — represents a high-value application for Risha gas. Natural gas feedstock accounts for approximately 60-70% of the cost of conventional ammonia production, making access to competitively priced gas the single most decisive factor in commercial viability. Ammonia produced at or near the Risha field could serve both export markets and Jordan's existing fertiliser industry, which already benefits from the country's substantial phosphate resources. Recent exploration in eastern Jordan has identified a phosphate deposit covering 3,000 square kilometres, with preliminary estimates of geological resources in excess of 726 million metric tons — opening the door to a vertically integrated phosphate-to-ammonia-to-fertiliser value chain.[13]

V.4 Petrochemicals and High-Value Chemical Industries

Natural gas serves as both an energy source and a primary feedstock for a wide spectrum of chemical industries, including the production of methanol, plastics, synthetic fuels, polymers, and pharmaceutical compounds. These are high-value, export-oriented industries that could generate significant economic returns from Risha's gas output while contributing to Jordan's industrial diversification agenda. The principal enabling condition is a reduction in gas transportation costs to levels that allow newly established facilities to compete effectively in global markets — underscoring again the centrality of the pipeline infrastructure investment.

Similarly natural gas is an essential energy input for a range of established industrial sectors including cement, steel, silica processing, and ceramics manufacturing — industries already present in Jordan but long constrained by comparatively high energy costs. A transition to natural gas supply would materially enhance their cost competitiveness, both for existing facilities and for new entrants evaluating Jordan as a location for greenfield investment.

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[13] *The Jordan Times*, "Phosphate Reserves in East Jordan 'Promising' — Energy Ministry," 2022, https://jordantimes.com/news/local/phosphate-reserves-east-jordan-%E2%80%98promising%E2%80%99-%E2%80%94-energy-ministry (accessed 4 Apr. 2026).

V.5 Residential and Commercial Sectors: City Gas Networks

The government is actively pursuing the expansion of natural gas into Jordan's residential and commercial sectors. The demand potential is particularly significant in the major urban centres of Amman, Zarqa, and Aqaba. In 2025, MEMR issued an official document titled 'Opportunity to Develop Natural Gas Distribution Networks in Amman and Zarqa, inviting interested parties to submit letters of intent as part of a formal preliminary investment process. The project envisages the construction of city gas pipelines spanning approximately 61 kilometres to serve residential, commercial, and light industrial customers across both cities.

V.6 Transportation Sector: An Underexplored but High-Potential Sector

The transportation sector warrants particular attention, given that it accounts for a substantial share of Jordan's total primary energy consumption. As of January 2024, electric and hybrid vehicles accounted for 20% of the total vehicle fleet. Natural gas vehicles represent a complementary pathway within this transition. Jordan has already permitted the importation of trucks fitted with gas engines, and the technical feasibility of converting a portion of the existing diesel fleet to CNG has been established. Such a transition would reduce operating costs of land transportation while simultaneously creating a new and geographically distributed demand base for Risha gas, with positive externalities for urban air quality and carbon emissions. Capturing this opportunity will require coordinated action across vehicle import regulations, fuel pricing, and refuelling infrastructure investment.

VI. Institutional Arrangements and Stakeholders

Stakeholders in Risha Gas Field development projects can be grouped into five interrelated categories: (i) government and regulatory institutions; (ii) state-owned and public sector entities; (iii) private and regional investors; (iv) financial institutions; and (v) civil society and local communities. The sphere of influence across these groups is uneven, with government bodies, state-owned enterprises, and financiers being the most influential in both exploration and project structuring and implementation.

VI.1 Government and Regulatory Institutions

MEMR serves as the principal policy authority, responsible for setting national energy strategy, managing hydrocarbon resources, and awarding exploration and development rights. Its objectives include strengthening energy security, reducing import dependence, and promoting domestic gas development under commercially viable conditions. MEMR is also engaged in coordinated planning to align the gas development strategy with broader economic objectives as presented in the Jordan Energy Master Plan (JEMP). Regulatory oversight is exercised by the Energy and Minerals Regulatory Commission (EMRC), responsible for licensing, setting tariff frame-

works, safety, and technical compliance across the gas and electricity value chain. The Ministry of Finance (MoF) plays a significant role particularly where gas projects involve sovereign guarantees, tax incentives, or long-term offtake obligations — typically exercised through the Government Investment Management Company (GMIC). Additional relevant entities include the Ministry of Environment (MoE) for environmental impact assessments, the Ministry of Investment for attracting local and international investors, and JSMO for safety and quality.

VI.2 State-Owned and Public Sector Entities

JNPC is the national entity mandated to undertake upstream oil and gas exploration and production. It occupies a distinctive position by functioning simultaneously as a commercial stakeholder and a tool of national policy — shaping how projects are governed, how risks are distributed among partners, and how technical knowledge is transferred. Through the concession framework, JNPC has an opportunity to grow its institutional capabilities and accumulate the financial resources needed to sustain the pace of Risha Gas Field development. NEPCO is the single buyer of electricity and the largest gas off-taker, making its contractual commitments with JNPC central to the bankability of gas-to-power projects.

VI.3 Private and Regional Investors

Private investors include international oil and gas companies, infrastructure developers, and project sponsors seeking commercially viable opportunities in Jordan's gas sector. Their participation is essential for mobilising capital, technology, and operational expertise. Regional investors — especially from the Gulf — constitute a potentially distinct and increasingly important group, often combining commercial objectives with strategic and geopolitical considerations. Their influence can be significant, particularly when investments are linked to broader bilateral or regional economic cooperation frameworks. However, the recent developments in the Gulf and the significant economic hit absorbed by countries such as Saudi Arabia and United Arab Emirates may slow the inflow of investment Jordan would need to underwrite its role as a transit hub, as these countries are likely to prioritise repairing their economies and damaged infrastructure before committing capital to cross boarder energy projects.

VI.4 Financial Institutions

Financial institutions play a critical enabling and disciplining role. Domestic banks and institutional investors such as the Social Security Investment Fund can be significant in developing gas projects given the magnitude and size of such investments. Multilateral institutions such as the World Bank, International Finance Corporation, and the European Bank for Reconstruction and Development are often involved in financing, guarantees, or policy support related to energy infrastructure. Beyond capital provision, international financial institutions exert substantial influence through their conditionality, environmental and social safeguard frameworks,

and governance requirements. Their involvement can enhance project credibility, lower financing costs, and crowd in private investment.

VI.5 Civil Society and Local Communities

Local communities affected by gas exploration, production, or transport infrastructure have direct stakes in employment opportunities, land access, environmental protection, and health and safety outcomes. Although their formal decision-making power is limited, inadequate engagement can generate social opposition and reputational risks that delay or undermine projects. Environmental and civil society organisations can influence public discourse, regulatory scrutiny, and the policies of international financiers, particularly with respect to emissions, water use, and climate alignment.

VII. Jordan's Regional Role in the Gas Sector: Pillars and Emerging Prospects

With meaningful domestic production, Jordan could move from being a purely dependent importer to a more balanced regional player. While unlikely to become a major exporter, Jordan could leverage domestic supply to negotiate better regional energy terms, reduce exposure to political disruptions, and allow more strategic use of regional imports. Jordan's emergence as a regional energy actor rests on three interconnected pillars: its geographic centrality, its established cross-border energy infrastructure and agreements, and its reliable diplomacy.

VII.1 Geographic Centrality and Infrastructure

Jordan occupies a pivotal location at the intersection of the Levant, the Arabian Peninsula, and North Africa — a position that renders it a natural transit corridor between energy-surplus and energy-deficit economies in the region. This geographic advantage is underpinned by the Arab Gas Pipeline, which connects Egyptian gas fields to Jordan and extends northward through Syria toward Lebanon and potentially beyond.

In September 2021, Jordan has attempted to leverage the pipeline to serve as a transit route for Egyptian gas destined for Lebanon, channelled through Syria as part of a wider Arab energy interconnection initiative backed by the World Bank and the United States. However, this initiative was constrained by US sanctions on Syria under the Caesar Syria Civilian Act (2019, effective June 2020). By 2022, Fajr Company, the designated operator of the Arab Gas Pipeline in Lebanon, declined to assume the transportation risk in the absence of formal legal clearance from US authorities. This episode illustrates the extent to which the legal and geopolitical architecture surrounding US sanctions on Syria has constrained the ability of regional

operators and governments to act on commercially and socially sound energy agreements even where the physical infrastructure and the political will exist. [14]

The situation shifted with the collapse of the Assad regime in December 2024 and the establishment of a new government under Ahmad al-Sharaa. In May 2025**,** President Donald Trump announced the lifting of US sanctions on Syria, followed by a series of Treasury Department (OFAC) general license and State Department waivers that progressively suspended key Caesar Act provision. These measures have reopened the legal pathway for cross-border energy transit through Syrian territory, prompting renewed discussions among Cairo, Amman, Damascus, and Beirut on reactivating the Arab Gas Pipeline.

VII.2 Cross-Border Energy Relationships

A second pillar of Jordan's regional role is the network of bilateral energy relationships and long-term agreements. Its long-standing energy ties with Egypt through the Arab Gas Pipeline established Jordan early on as an integral part of regional gas architecture. The energy relationship with Israel has added a further — though politically contentious — dimension. The long-term gas supply agreement with the Israeli Leviathan field has embedded the country within the emerging Eastern Mediterranean energy framework; while simultaneously positioning Jordan as a potential bridge between Israeli offshore gas resources and other markets, should the political landscape evolve to permit broader regional trade.

Beyond gas, Jordan maintains electricity interconnections with Egypt, Syria, Iraq, and the Palestinian territories, reinforcing its role as a multi-vector energy hub rather than a single-commodity transit state. The Jordan-Iraq industrial zone concept represents a compelling example of how Jordan's gas development ambitions intersect with a broader regional economic integration agenda, transforming the Risha Gas Field from a domestic energy asset into a catalyst for cross-border industrial development and bilateral diplomatic deepening.

VII.3 Energy Diplomacy

Jordan has tried to pursue energy agreements that balance economic imperatives with geopolitical realities. This diplomatic flexibility has allowed Jordan to position itself as a reliable partner. Jordan's participation in multilateral energy initiatives, including discussions on Arab electricity grid integration and regional gas interconnection, attests to its ambition to play a positive role in the region's energy governance.

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[14] Interview with Eng. Fuad Rashad, Former CEO of Fajr Co. Feb. 26

The proposed 330-kilometre pipeline connecting the Risha field to the Arab Gas Pipeline at Al Khanasri in Mafraq Governorate is the critical infrastructure link that would transform domestic production gains into regional supply capacity. Once operational, this connection would allow Jordanian gas to feed directly into a network already linking multiple Arab economies, effectively converting Jordan from a transit state for others' gas into an originating supplier within the same regional system.

In January 2026, the Jordanian and Syrian governments finalised a landmark energy agreement involving Jordan supplying natural gas to Syria to help alleviate the latter's chronic electricity shortages, specifically targeting power plants in southern Syria including the Al-Nasiriyah thermal plant. This could generate transit revenue, and create an energy interdependence that may lead to further cooperation in electricity interconnection, which has been partially offline since 2012.

The prospect of extending this corridor further northward to Turkey represents the most ambitious — and potentially most transformative — dimension of Jordan's long-term regional energy vision. Turkey serves as a critical gas transit hub connecting Middle Eastern and Caspian resources to European markets. A pipeline corridor running from Risha through the Arab Gas Pipeline network, northward through Syria, and connecting to Turkey's extensive gas transmission infrastructure would position Jordan as a contributor to a supply chain ultimately reaching European consumers — a scenario that would attract significant international investment interest and political support, particularly in the context of Europe's ongoing efforts to reduce dependence on Russian gas. While this Turkey connection remains a longer-term and more complex proposition, the foundational infrastructure partially exists, the demand incentives are present on both ends, and the geopolitical appetite for alternative transit routes in the Eastern Mediterranean is there.

VIII. Conclusion and Policy Recommendations

The Risha Gas Field represents a rare opportunity and could mark a turning point in Jordan's energy sector. However, serious challenges remain in fully developing and utilising the field. The immediate priority should be maximising the utilisation of existing extracted quantities before advancing the longer-term strategic pipeline.

Strengthening the institutional capacity of the energy sector — including improved governance and regulatory frameworks — is essential. A number of energy-intensive sectors could be anchored to the field to meaningfully increase consumption levels.

At the regional level, the discovery could shift Jordan's role from energy transit country to a supplier, with all the attendant advantages that brings within the evolving regional dynamics.

To translate resource potential into sustained economic benefit, the paper proposes the following priority actions:

- Accelerate pipeline development: Prioritise financing and construction of the 330-kilometre Risha-to-Arab Gas Pipeline connection as the single most critical infrastructure investment, exploring public-private partnership structures and IFI co-financing to reduce sovereign risk.
- Pursue a portfolio utilisation strategy: Activate short-term CNG and LNG distribution in parallel with long-term pipeline planning, and formally identify and sequence the key sectoral demand pathways to ensure coherent investment signalling.
- Strengthen the institutional and regulatory framework: Enhance JNPC's commercial autonomy and technical capacity, clarify EMRC's tariff-setting powers for gas, and streamline environmental permitting to reduce project lead times.
- Incentivise industrial fuel-switching: Introduce targeted tax incentives and concessional financing mechanisms to reduce the upfront capital burden for industrial consumers converting from diesel and heavy fuel oil to gas.
- Deepen regional energy diplomacy: Formalise and expand bilateral energy agreements with Syria, Lebanon, and Iraq, and actively engage Turkey and European partners in the long-term northern corridor vision, leveraging Jordan's neutral diplomatic positioning.
- Build supply resilience: Maintain flexible LNG import capacity — including the Energos Force FSRU and the forthcoming Sheikh Sabah onshore terminal — as a strategic buffer against regional supply disruptions, while progressively substituting imports with domestic Risha production.
- Engage communities and civil society proactively: Establish structured mechanisms for community consultation along pipeline and industrial development corridors to secure social licence, mitigate reputational risk, and align local employment outcomes with project timelines.

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