

The Natural Gas of the Kurdistan Region of Iraq Between
Local and Regional Balances



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Executive Summary

- The recent global developments and Russia's invasion of Ukraine have spotlighted the natural gas sector in the Kurdistan Region of Iraq (KRI) as a potential alternative to Russian natural gas for Europe.
- The natural gas sector contributes to placing the KRI on the global energy map and attracts the attention of major countries to work on developing this sector and ensuring a continuous energy flow.
- According to data from the KRI's Ministry of Natural Resources, the region holds approximately 3% of the world's gas reserves, a figure that ranks the KRI tenth globally in terms of gas ownership.
- Data related to the gas sector in the Kurdistan Region of Iraq is inconsistent, with discrepancies between information and reports released by central government institutions, and the limited data provided by the Kurdistan Regional Government. This is further complicated by inconsistent figures from both local and international private companies concerning this sector.
- Since 2007, the Kurdistan Regional Government has focused on the gas sector and has successfully leveraged it to meet domestic electricity needs.
- Linking the energy sector to political disputes hampers the development of the gas sector in the KRI, particularly given the

ongoing disagreements between Erbil and Baghdad and the lack of a clear path to resolution.

- Advancing the gas sector in the KRI would enable Iraq to reduce its dependence on Iranian gas and assist the Iraqi government in meeting its electricity needs by relying on gas from the area.
- Internal Kurdish disagreements between the governing parties in the KRI represent one of the most significant obstacles to the development of the gas sector. The success of this endeavor requires comprehensive cooperation between both parties.
- Iran views the energy developments in the KRI, particularly the gas sector, with concern due to the potential for the Region's gas to serve as an alternative supply.

Introduction

The Russian invasion of Ukraine has thrust the issue of natural gas back into the forefront of international relations. Europe relies on Russia for nearly 40% of its gas needs, prompting the continent to seek safer alternatives to Russian gas. While options like coal and nuclear energy are available, environmental and climate concerns surrounding these sources make them less desirable. Rising costs of available alternatives, such as liquefied natural gas from the United States and Qatar, have also posed challenges. Meanwhile, Africa has emerged as a potential gas supplier to Europe, some countries in Africa have significant gas reserves, in addition to existing export pipelines directed toward Europe, but production and transportation capabilities in the continent often fall short. Amid these complexities, the Kurdistan Region of Iraq has boldly positioned itself as a prospective gas supplier. Plans are in place, and efforts are underway, to connect the Region's production fields to the global market via Turkey, and the final stages of this infrastructure are being finalized.

Another factor propelling Iraq's Kurdistan Region onto the list of potential suppliers is its substantial natural gas reserves, estimated at around 3% of the world's total, according to official data from the KRI.¹ Currently, this natural gas is produced on a limited scale to meet domestic electricity needs. However, should the Region develop its energy

¹ Ministry of Natural Resources in the KRG-
<https://gov.krd/mnr/publications/%D8%BA%D8%A7%D8%B2/>

infrastructure and prepare for gas exports, particularly to Turkey and Europe amid the current crises, it will strengthen its domestic standing and increase its regional and international influence. This is especially true if an export plan is successfully implemented that takes into account local and regional balances and avoids the mistakes made in the oil sector, which became an economic burden and a source of ongoing financial issues with Baghdad. These obstacles could be re-evaluated and minimized with pressure and support from global powers, especially the United States, as well as regional forces like Turkey and the Arab Gulf states, which are in a phase of normalizing diplomatic and political relations.

The paper at hand aims to address various topics related to the natural gas sector in Iraq's Kurdistan Region. These topics include the early fieldwork initiated by the Kurdistan Regional Government (KRG) in this sector, along with the internal, regional, and international challenges facing it. The paper also delves into statistics related to natural gas reserves and highlights the most significant discovered fields within the Region. Furthermore, it discusses the visits made by the President of the KRI and KRG Prime Minister to several regional countries, such as the United Arab Emirates, Qatar, and Turkey, where they have spoken on multiple occasions about the gas sector taking into account the key possibilities for Iraq and the KRI to benefit from potential developments in the Region's gas infrastructure, also exploring the challenges and obstacles that the KRI gas sector faces at both domestic and regional levels.

The paper also aims to provide a clear vision of the reasons behind Iran's concerns about the development of the gas sector in the KRI, and the risks and challenges that would face the Kurdistan Region of Iraq in the event of proceeding with the development of the gas sector and competing with regional parties within Iraq.

1- Origins of the Gas Sector in the Kurdistan Region of Iraq

The issue of energy - oil and gas - has occupied a large space in the economic and political interactions of the Kurdistan Region of Iraq after the liberation of Iraq in 2003, especially after the ratification of the permanent Iraqi constitution in 2005, which opened up a large scope for the Region to develop this sector, both constitutionally and in terms of the absence of a central Iraqi law for oil and gas. In 2006, the KRI established the Ministry of Natural Resources, while in 2007² the Kurdistan Regional Parliament passed the Oil and Gas Law. Despite this distinction and the positive steps in this field, the energy sector has always been a source of legal, constitutional, political, and economic disputes and conflicts between the KRG and the central government in Baghdad, as oil and gas are the most important strategic economic resources in the country, as a result of both parties relying on building a rentier economy that depends on more than 90% of oil sales. Despite ongoing observations and questions related to the oil sales process, the Kurdistan Region of Iraq has succeeded, in a short period, in taking

² Growth of the oil sector in the Kurdistan Region of Iraq compared to Iraq, Source: Rudaw Channel, Date: 09-11-2018, Link: <https://www.rudawarabia.net/arabic/business/09112018>

significant steps in the energy sector, especially oil, by outpacing the central government in Baghdad legally through the issuance of the Oil and Gas Law by the Kurdistan Regional Parliament in 2007, and its ability to sign huge contracts with the most prominent international companies in the field of oil (Chevron, ExxonMobil, Total, Rosneft, Genel Energy).

The Kurdistan Gas Project was established in 2007 under an agreement signed by Dana Gas and Crescent Petroleum with the KRG.³ This agreement granted them exclusive rights to assess, develop, produce, market, and sell petroleum and natural gas from the “Khor Mor” and “Chemchamal” fields in the KRI. In return, the government benefited from receiving stable gas supplies used to power electricity generation plants in the Region. Founded in 2005, Dana Gas is the first and largest private-sector company operating in the field of natural gas in the Middle East. The company owns assets in the areas of gas exploration, production, processing, and transportation in the UAE, Egypt, and the Kurdistan Region of Iraq. Its activities include the exploration and production of natural gas, its processing, transportation, and the sale of petroleum products, according to the company's official website. Within

³ Operational Processes in the Kurdistan Region of Iraq, Source: Dana Gas website, Link: <https://2u.pw/B1mYo>

the KRI, the company's areas of operation include the ‘‘Khor Mor’’ field, which is 45 km away from Kirkuk. At the beginning of 2022, the company announced that it had raised gas production in the Kurdistan Region of Iraq to record levels, reaching 452 million cubic feet by the end of 2021. The company is also working on expanding the Khor Mor gas field at a cost of \$250 million, aiming to increase production capacity by 55% in April 2023 to reach 700 million cubic feet per day.

The table below indicates the companies operating in the gas sector within the Kurdistan Region of Iraq, according to the fields in which they are active. The table also highlights the share of each company in the amount produced, as well as the status of operations in the field, whether active or still under development. According to the table, the main investor in the gas sector so far is the United Arab Emirates, followed by shares from other European countries such as Germany, Hungary, and Austria. The table also indicates an attempt by Turkey to invest, although it has not yet reached the production stage. It's worth noting that the Turkish company that has secured contracts in the aforementioned fields does not have any other partners, unlike the Khor Mor-Chemchemical field, where all the active European countries in the gas sector in the KRI have a stake.

Gas Fields in the Kurdistan Region of Iraq⁴

Companies Operating in the Gas Sector in the Kurdistan Region						
Explored Gas Fields	Active Companies	Country	Phase	Company Share	Area of Operation	Production
1- Khor Mor-Chemchemal	Dana Gas	UAE	Production	35%	Sulaymaniyah	400 million cubic feet for the KRI
	Crescent Petroleum	UAE		35%		
	MOV	Austria		10%		
	RWEST	Germany		10%		
	MOL	Hungary		10%		
2- Ben Bawi	Genel Energy	Turkey	Development	100%	Erbil	No Production
3- Miran	Genel Energy	Turkey	Development	100%	Sulaymaniyah	No Production
4- Khurmala	Kar Group	The KRI	Production	No Info	Erbil	No Info

⁴ Financial Independence and the Geographic Division of Oil and Gas Fields in the Region,
 Source: Zamanpress, Date: 01-10-2021, Link:
https://www.zamenpress.com/Detail_wtar.aspx?jimare=3464

2- Distribution of Gas Fields in the Kurdistan Region of Iraq and Expected Reserves

Natural gas is concentrated in the central and southern parts of the Kurdistan Region of Iraq, with the most prominent fields being Khor Mor and Chemchemal. According to a study conducted by the United States Geological Survey, the Region possesses over 60 trillion cubic feet of natural gas reserves. In November 2015, Tony Hayward, the CEO of Turkish energy company Genel Energy, confirmed that the Kurdistan Region of Iraq has approximately 5 trillion cubic meters (177 trillion cubic feet) of gas within its territory. These reserves surpass some of the major Liquefied natural gas suppliers to the European Union, such as Norway (61), Libya (51), Azerbaijan (47), and the Netherlands (23 trillion cubic feet) as of 2017. Emirati company Dana Gas estimated in 2015 that the Khor Mor and Chemchemal fields hold about 75 trillion cubic feet of natural gas and 7 billion barrels of oil. This constitutes the largest untapped gas reserve in the Middle East and is two and a half times larger than the Zohr field off the coast of Egypt.⁵ If these estimates are accurate, the Kurdistan Region of Iraq would rank tenth globally in gas reserves by 2020, following (Russia, Iran, Qatar, Turkmenistan, the United States, Venezuela, China, the United Arab Emirates, Saudi Arabia and the Kurdistan Region of Iraq.)⁶

⁵ Scenarios for Marketing Natural Gas in the Kurdistan Region of Iraq, Source: Journal of Future Studies, Date: 05-06-2020, Link: <https://www.centerfs.org/scenarios-for-natural-gas-marketing-in-the-kurdistan-region/>

⁶ The KRI owns 5.7 trillion cubic meters of natural gas, Source: gksat.tv, Date: 09-02-2022, Link: <https://www.gksat.tv/details.aspx?jimare=129373> For more on this topic, can refer to: The

The table below details the confirmed gas reserves and their distribution according to the fields, in addition to specifying the quantities of oil contained in each field.

Main oil and gas reserves in the fields of the Kurdistan Region of Iraq.

Field	Proven + Probable Oil Reserves (Million Barrels)	Proven and Probable Gas Reserves (Trillion Cubic Feet)
Khormala	2726	3.6
Shaikan	1001	1.3
Atrush	854	0.1
Tawke	731	0.1
Taq Taq	579	0.1
Kurdamir	541	2.3
Sheikh Adi	531	0.4
Bolkhana	409	NA
Tobkhana	55	1.7
Chamchamal	110	3.4
Khor Mor	138	4.4
Miran	34	3.5
Bina Bawi	45	4.9
Semele	-	1.4
Total	7.754	27.2

Robin Mills⁷

Kurdistan Region of Iraq in the Light of Natural Gas, Source: Chawykurd, Date: 15-01-2019, Link: <http://chawykurd.com/detailsWtar.aspx?NusarID=49&Jmare=1035>

According to estimates by Gaffney Cline Associates, the proven gas reserves for the Kurdistan Region of Iraq are 25 trillion cubic feet, and the unproven reserves are estimated at 200 trillion cubic feet. This information is cited from (Wahid Kakayi's work, 'Geopolitics of Oil and Natural Gas in the Kurdistan Region of Iraq and its regional and International Implications)

⁷Under the Mountains: Kurdish Oil and Regional Politics

3- Current State of Infrastructure in the Gas Sector in the Kurdistan Region of Iraq

The infrastructure pertaining to the Kurdistan Region of Iraq can be bifurcated into two primary avenues. The first avenue addresses the pipelines dedicated for export and their actual operational capacities. The second avenue is specifically focused on the corporations that are currently active within the Region. Of particular note is Dana Gas, which stands as the principal investor in the Region's gas sector thus far. This corporation initiated the Gas Project of the Kurdistan Region of Iraq through a series of contractual agreements with the KRG. In terms of the export network, although there has been extensive discourse surrounding the prospect of gas exportation from the Region, the essential infrastructure requisite for such exportation remains a salient issue. The completion of the major portion of the pipelines crucial for exportation has been delayed due to a myriad of administrative, political, and economic challenges.

The attack by ISIS on the Kurdistan Region of Iraq and the influx of hundreds of thousands of refugees and displaced persons into the area led to an economic crisis, impeding the KRG from easily completing key pipelines for natural gas transportation and export. According to the "IRAQ OIL REPORT" website, the Ministry of Natural Resources in the KRI signed an agreement in January 2021 with the 'Kar Group' to extend

<https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/01/Kurdish-Oil-and-Regional-Politics-WPM-63.pdf>

a 36-inch natural gas pipeline from the Khor Mor gas field to Erbil and another 52-inch pipeline from Erbil to Dohuk. This places the Kurdistan Region of Iraq's gas pipeline just 35 kilometers from the Turkish border, completing the foundational stage for export outside Iraq, provided these projects proceed without internal and external issues. Experts anticipate that construction of this pipeline will take a minimum of 16 months. Dana Gas reports that the current daily gas production has reached 450 million⁸ cubic feet, and estimates indicate that by 2025, gas production will rise to 950 million cubic feet in Khor Mor and Chamchamal. The KRG requires 1.6 billion cubic feet of gas per day to fully meet internal electricity needs. This suggests that relying solely on Dana Gas and its partners may not suffice to meet internal needs and prepare for exports by 2025 unless there is thoughtful, incremental investment and development in other fields and infrastructure.

As for the experience of companies operating in the gas sector, specifically Dana Gas, observers believe that the company's operations have not been relatively in the Region's interest. The company has secured its interests at the expense of the KRI by winning several lawsuits against the KRG. This includes winning a legal case worth \$2.329 billion when Dana Gas, its parent company Crescent Petroleum, and their partners filed a case against the Kurdistan Regional Government in front

⁸ The KRG extends its gas pipelines to the Turkish border, Source: Rudaw Network, Date: 08-02-2022, Link: <https://www.rudawarabia.net/arabic/business/08022022>. For more on this topic, you can also refer to: The Capacity of the Natural Gas Sector in the Kurdistan Region of Iraq, Source: Draw News, Date: 12-04-2021, Link: https://drawmedia.net/ar/page_detail?smart-id=8182."

of the London Court of International Arbitration in October 2013.⁹ They accused the government of not fully paying their dues for the production of gas liquids. Meanwhile, the KRG announced at the time that this lawsuit came amid its war against terrorism and the severe impact on its budget due to a sharp decline in revenue resulting from the fall in oil prices, which forced it to delay and restructure due payments to its contracting parties.

The two parties reached a settlement whereby the Region would pay \$1 billion to the company, and the remaining amount was reclassified from debts to pending costs, to be recouped by the company from revenues. Additionally, on May 1, 2017, Dana Gas and its partners filed a lawsuit in Washington against the KRG, demanding \$26.5 billion from the government as compensation for delays in implementing their oil and natural gas projects in the Region. However, after some time, they agreed to withdraw the lawsuit in exchange for a set of benefits in favor of the company, including:

First: Extending Dana Gas' contract by 17 years until 2049.

Second: Expanding the contract areas by adding blocks 19-20 to the 2007 zones.

Third: The Kurdistan Regional Government will purchase 50% of the excess gas produced for power generation stations, and the rest (50%)

⁹ The KRI pays one billion dollars to Dana Gas and its partners to settle a lawsuit in London, Source: Reuters, Date: 30/08/2017, Link: <https://www.reuters.com/article/iraq-economy-mn5-idARAKCN1BA29V>.

will be marketed by Dana Gas and its partners.¹⁰ This agreement between the KRG and Dana Gas is considered a gain for the KRI in terms of reducing losses and lowering the compensation from \$26 billion to approximately \$2 billion for Dana Gas. However, despite this, the revenues from natural gas appear to be negligible for the KRG so far except for contributing to electricity provision for the Region and aiding the government in handling this strategic file. Energy experts believe that unless the KRG learns from its past mistakes with Dana Gas, it would be difficult to pin many hopes on the gas sector to support the Region's experience and its development at the regional level.

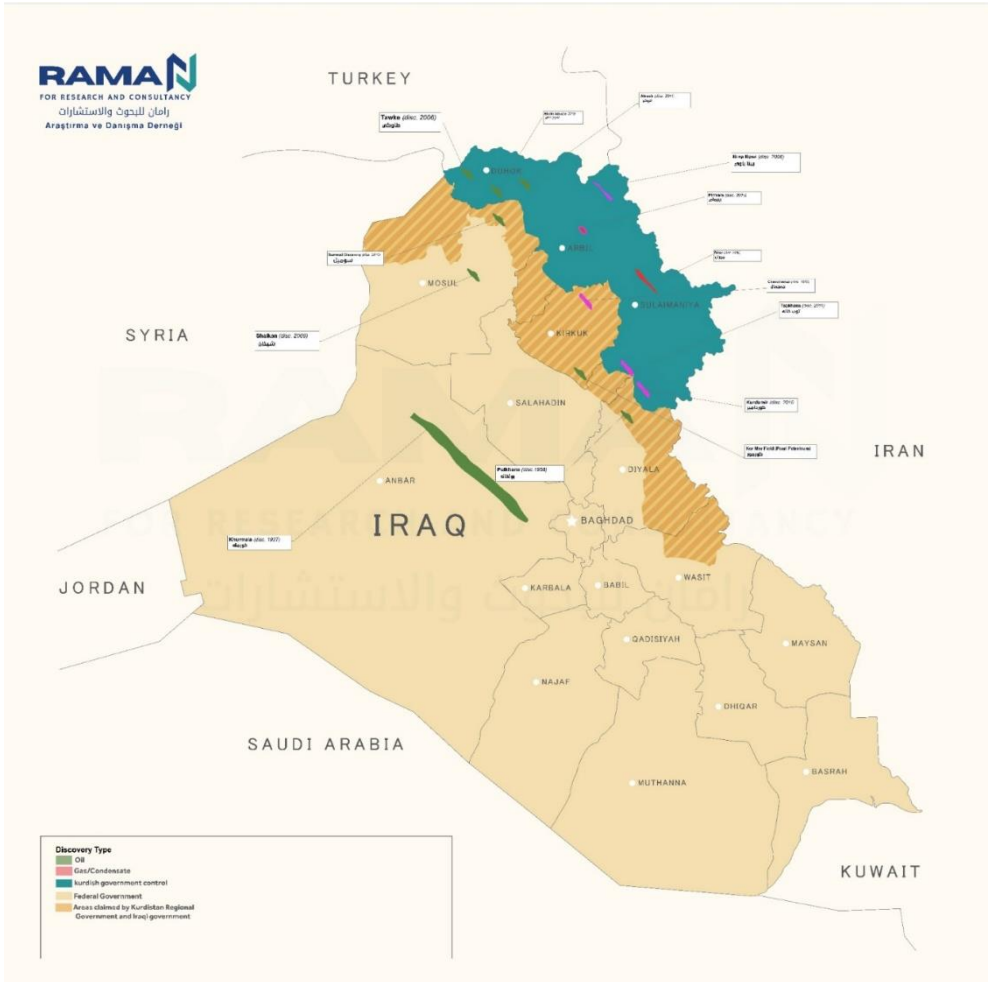
The available information and facts in the gas sector demonstrates that the KRG is making a concerted effort to establish the essential infrastructure. This effort aims to link gas fields with major urban centers for the purpose of feeding power plants and to lay the groundwork for a cohesive regional gas transportation system. Plans are also in place to extend this infrastructure to the adjacent Turkish border to enable potential future gas exports. Even though there is an existing agreement with Kar Company to bring this project to fruition, various administrative challenges and some political disagreements have stalled its on-the-ground implementation. The resolution of these political issues is crucial for the project to move forward successfully.

¹⁰ Extending Dana Gas's bet to 2049, Source: Peyserpress, Date: 07-03-2019, Link: <https://www.peyserpress.com/detail/1475>

Additionally, Russia's Rosneft company, which was initially expected to construct the gas pipelines, has not yet initiated the project and is unlikely to take any practical steps toward its execution. This is mainly due to Rosneft's challenges in securing financial backing for the venture.¹¹ As a result, the focus will shift to Kar Company's project, which aims to extend the pipeline from Sulaymaniyah to Dohuk, and from there to Turkey.

The map below illustrates the distribution of oil and gas fields in the Kurdistan Region of Iraq, excluding the "disputed areas" between the Region and the central government. The map highlights gas fields in green color which are primarily concentrated in areas under the control and influence of the Patriotic Union of Kurdistan (PUK) party. These areas also border regions where Popular Mobilization Forces and the Iraqi Army are present. This not only increases the potential for heightened tensions among the various conflicting parties in the Region but also represents an opportunity for security and economic cooperation if an agreement on how to manage the situation is reached.

¹¹ Energy Market and the Future of Natural Gas in the Kurdistan Region of Iraq, Source: Rudaw, Date: 21/04/2022, Link: <https://rudawrc.net/?p=2015>



4- Strategic Importance of the KRI's Gas as a New Resource for the Energy Market

According to available data, the Kurdistan Region of Iraq has made successful investments in its gas sector over the past 15 years. Despite this, the Region has yet to fully meet its domestic energy needs, particularly in electricity production. OPEC forecasts that global primary energy requirements will surge by 54% by the year 2035. This unexpected hike is largely attributed to an 87% increase in the demand for fossil fuels, driven significantly by the growing economies in Asia. The Kurdistan Region of Iraq is well-positioned to capitalize on this escalating global energy demand. Its advantageous geographic location places it at the crossroads of potential energy consumers. Furthermore, the KRI has the opportunity for rapid integration into the global gas network, especially given its proximity to Turkey, a crucial global hub for oil and gas. There's a growing awareness among political stakeholders in the Kurdistan Region of Iraq about the urgent need to invest in the gas sector to address current challenges. The following sections of the paper aim to explore the primary factors affecting the gas sector in the KRI, discuss its international relations, and assess how this sector could be developed for mutual benefits among all parties involved.

4.1 Strengthening Ties with the Central Government Through Gas

The relationship between the central government and the KRG is fraught with ongoing disputes concerning natural resources. These disagreements manifest in various ways, including legal and constitutional challenges, such as the recent ruling by the Federal Court that nullifies oil contracts made by the KRI with oil companies. This means that the sector will continue to be subject to potential actions by the central government, particularly if political disputes arise. Such an environment hampers the development of this sector as a cornerstone for the Region's future. Therefore, stakeholders in the KRI must formulate policies in collaboration with the political entities in Baghdad in a way that prevents the activation of the Federal Court's ruling, as its implementation would lead to the KRI losing all its gains in this area.

On another front, the energy initiatives undertaken by the Kurdistan Regional Government have not been well-received by the central government in Baghdad. The central authority perceives these steps as the Region imposing its will on the central government and often accuses the Region of violating constitutional and legal norms. Various harsh measures have been taken against the Region from a legal standpoint, culminating in a decision to cut the Region's share of the national budget. This step is also tied to political motivations stemming from the desire of Iran's allies within the central government to weaken the Region. Such pressures continue to the present day, as evidenced by the passing of the 2021 budget. This includes a condition that the Region's share of the budget will be sent only upon the return of revenues from 250,000 barrels of oil per

day at SOMO (State Organization for Marketing of Oil) (Iraqi Company) rates, along with half of the internal revenues generated by the Kurdistan Region of Iraq.

Iraq requires approximately 25,000 megawatts of electricity but can only produce around 15,000 to 16,000 megawatts. The remaining portion is purchased from Tehran, ranging from 1,200 to 1,500 megawatts. To cover this electricity deficit, Iraq needs to supply about 37 to 38 million cubic meters of natural gas. This results in an annual loss of 3.5 to 4 billion dollars to Iran's benefit. Despite the high cost of purchasing electricity from Iran, it currently aids Baghdad in addressing energy shortages in provinces like Basra, Diyala, and Maysan. It is unlikely that Iraq will discontinue the agreement to buy electricity and natural gas from Iran, even as Baghdad faces pressure from the United States due to sanctions imposed on Tehran, until a suitable alternative for electricity and gas is found. Currently, Iraq can provide 60% of its electricity needs in addition to what's imported from Iran. Although Iraq and the Kurdistan Region of Iraq possess natural gas reserves, they have not yet been able to fully supply the required electricity and natural gas. The gas reserves in the KRI are estimated at 200 trillion cubic feet, or 5.67 trillion cubic meters, while Iraq's reserves are estimated at 112 trillion cubic feet or 3.17 trillion cubic meters.

Both the central and regional governments have the potential to enhance and expand their natural gas production. The central government aims to unilaterally boost its gas output to around 100 million cubic meters by 2025. If this plan comes to fruition, Iraq will eliminate its dependency on

Iran for electricity imports. Thus, should the central and federal governments find common ground, there exists the likelihood of fulfilling all of Iraq's domestic energy requirements, in addition to potentially exporting energy in the near future.¹²

4.2 Achieving Synergy Between Sulaymaniyah and Erbil Through Gas Investments

Disagreements between the Kurdistan Democratic Party (KDP) and the Patriotic Union of Kurdistan (PUK) over control of the energy portfolio are a major obstacle to the development of the gas sector.

These disputes between the two sides are not limited to political and administrative matters; rather, economic concerns and natural resources have significantly influenced them since the formation of the KRI. Both parties are fully aware that whoever controls the energy sector in the Region will be able to control the economic sector and thus gain the upper hand in both domestic and foreign policies. Clearly, the Kurdistan Democratic Party has succeeded in previous stages in controlling the oil sector, thereby strengthening its internal and external influence compared to other political forces. It seems apparent that the Patriotic Union of Kurdistan is working to prevent a repeat of the oil scenario with the gas

¹²Oil and Gas Geopolitics in the Kurdistan Region of Iraq and Regional and International Dynamics; Date: 23-04-2021.
<https://portal.arid.my/Publications/6e75af02-7f62-4c6d-8778-3c215ea66565.pdf>

sector as well, as most of the gas reserves are located in areas under its influence. There is information from some political sources in Sulaymaniyah indicating that the former Minister of Natural Resources, Abdullah Abdulrahman Abdullah (known as Ashti Hawrami), did not adhere to the contracts signed in the Khor Mor field with Dana Gas, which led the company to file a lawsuit in London against the KRG and win, requiring the Region to pay \$2 billion in compensation to the company. Experts believe that these serious disputes between the two parties pose a real threat to the energy sector in the Region and may be a primary reason for the delay in investment in this sector.

The sensitivity of the gas dossier lies in the concentration of the majority of reserves in areas under the influence of the Patriotic Union of Kurdistan. Meanwhile, the Kurdistan Democratic Party, which holds the parliamentary majority, attempts to manage the production and export process through diplomatic relations that are mainly under the purview of the government and Regional authorities aligned with the Kurdistan Democratic Party. Additionally, the transportation and export of gas to Turkey and Europe require passage through areas controlled by the Kurdistan Democratic Party. Consequently, the management of this dossier necessitates collaboration between the two ruling parties in the Region. Particularly noteworthy is the first oil export operation from the Kurdistan Region to Turkey in 2009, which was coordinated between the two parties and attended by the late Iraqi President Jalal Talabani and then-KRI President Masoud Barzani. However, the absence of Jalal Talabani and the continued separate handling of revenue-related matters by the Kurdistan Democratic Party and the Patriotic Union have

weakened the KRG and empowered individual entities at its expense. In light of this imbalance, it is difficult for the natural resources dossier to become a catalyst for economic integration between the Kurdish Regions, as it demands greater transparency and institutionalization to establish good governance.¹³

4.3 The Contribution of the KRI Gas to European Energy Security

The conflicts between Russia and Ukraine are prompting European nations to consider alternatives to Russian gas. It is evident that the Kurdistan Region of Iraq is one of the options on the table. In this context, as early as 2011, Tony Hayward, the CEO of British Petroleum, described the KRI as "one of the last great frontiers for oil and gas" (Martin, 2017). It is expected that gas from the KRI could emerge as one of the best options for many Western countries concerning energy security. This might also serve as one of the reasons for European support of the Peshmerga forces during their battles against the ISIS organization to maintain the integrity of the Region. Additionally, Western countries opening their consulates within the Region and assisting the local government in overcoming internal crises, challenges, and issues it faces in its relations with the central government in Baghdad.

¹³ The PUK raises the gas card against the KDP, Source: Draw news, Date: 25-01-2021, Link: https://drawmedia.net/page_detail?smart-id=7720

Some experts believe that the KRI was outside the sphere of energy interactions until 2007. However, today it has awakened as an area of great importance for energy in the Middle East.

The KRI which possesses approximately or more than 3% of the world's gas reserves and is geographically close to Europe, could become a new decisive actor in European energy security. This is contingent on the KRI successfully overcoming constitutional and legal disputes with the central government, which could hamper the development of such relationships.¹⁴

4.4 The Role of Natural Gas in Enhancing Relations Between the KRI and Turkey

At present, the KRI has only one outlet for exporting its resources to the outside world, which is Turkey. However, Turkey also aims to be the corridor for all energy supplies to Europe, based on its own energy strategy. On the one hand, Ankara's thirst for energy is growing annually at a rate of between six to eight percent.¹⁵ To maintain its economic growth, Turkey is working to strengthen its energy sector,

¹⁴ Journal of Geography, Politics and Society, Date: 31-03-2020, Link: <https://czasopisma.bg.ug.edu.pl/index.php/JGPS/article/view/4404/3826>

¹⁵ How Turkey Changed in 5 Years | Energy in Turkey between 2015–2020, Source: Anadolu Center for Middle East Studies, Date: 14-04-2021, Link: <https://ayam.com.tr/ar/%D8%AF%D8%B1%D8%A7%D8%B3%D8%A7%D8%AA/how-has-turkey-changed-in-5-years-energy-in-turkey-between-2015-2020/>

diversify suppliers for better deals, and establish itself as an energy corridor between producing countries in the East and consuming countries in the West. Turkey has recognized that relying on gas imports from Iran and Russia, especially after developments in Syria and other areas, could limit its options and diplomatic maneuvering space. Given that the Kurdistan Region of Iraq holds nearly 3% of the world's natural gas reserves, it can offer higher-quality gas at lower costs, potentially transforming Turkey into an East Asian energy corridor.¹⁶ This would focus on the geopolitical dimension by turning energy cooperation into a path for mitigating various risks and threats. This is especially relevant after the contours of Iran's cooperation with the Kurdistan Workers' Party (PKK) became clear, whether in the Iraqi or Syrian arena. Turkey also needs a strong Kurdish actor to create the necessary balance against the PKK. This role could be played by the Kurdistan Region of Iraq, which has advanced economic relations with Turkey and could be relied upon to counteract the threats posed by the PKK.

¹⁶ Turkey's KRG Energy Partnership, mei.edu, Date: 30-01-2013, Link: <https://www.mei.edu/publications/turkeys-krge-energy-partnership>

Overview of Gas Reserve Distribution Under the Dominance of the Two Major Parties in the Kurdistan Region of Iraq	
Distribution of Gas Reserves in Territories Under the Dominance of the PUK	Distribution of Gas Reserves in Territories Under the PDK
Kormo Field: 4.4 trillion cubic feet	Bina Bawi Field: 4.9 trillion cubic feet
Miran Field: 3.5 trillion cubic feet	Khormala Field: 3.7 trillion cubic feet
Chemchemical Field: 3.4 trillion cubic feet	Semele Field: 1.4 trillion cubic feet
Kurdmir Field: 2.3 trillion cubic feet	Shaikan Field: 1.3 trillion cubic feet
Topkhana Field: 1.7 trillion cubic feet	Sheikh Adi Field: 0.4 trillion cubic feet
	Atrush Field: 0.1 trillion cubic feet
	Tawke Field: 0.1 trillion cubic feet
	Taq Taq Field: 0.1 trillion cubic feet

The energy sector serves as an important avenue for the KRI, offering a vital opportunity for political parties to improve and strengthen the Region's standing at the local, regional, and international levels. This is especially true if they succeed in making economic interests a basis for rapprochement and resolving political disputes and crises. The sector also provides the possibility to build stable economic relations with Baghdad and to keep economic and trade cooperation separate from the political disputes that hamper the development opportunities in the energy sector. The Region is also capable of turning its gas profile into a leverage point

for entering regional and international energy equations through the Turkish gateway. It can contribute to meeting global energy needs to a limited extent, given the crises that the world is experiencing. This is particularly relevant given the stability that this experiment in the KRI is experiencing in a local and regional environment characterized by chaos and lack of stability.

To achieve these goals and to allow the Region to enter either the national or regional equation regarding energy supply, several steps will need to be taken:

- 1-** The government should have a clear plan for meeting local needs and increasing electricity production.
- 2-** There should be a clear plan for meeting Iraq's demands for gas and electricity. Iraq itself imports a significant amount of electrical energy from Iran. Iran is currently facing U.S. sanctions, which has led to problems related to these sanctions and also issues with Iraqi sovereignty. Therefore, the Kurdistan Region of Iraq can benefit from this situation for its own advantage and that of Iraq.
- 3-** Efforts should be intensified to market natural gas as the future of the global energy market is rapidly shifting towards an increased reliance on gas. The KRG has 10 years of experience in investing in the oil sector, which can be helpful in managing and exporting natural gas to international markets. Adopting this strategy could enable the KRG to export nearly 30 million cubic meters of gas daily to Turkey and Europe. This would result in daily financial revenues exceeding \$65 million and monthly revenues of \$1.9 billion. This would become an important source for the economy in the future. Moreover, relying on the revenues

from natural gas could pay two monthly salaries for all the Region's employees without any deductions (the total salaries of the employees in the Region for one month amount to 890 billion dinars, \$670 million). This would also lead to the resumption of public service projects, infrastructure, and basic services throughout the Region's provinces.

The list of potential customers for the natural gas from the Kurdistan Region of Iraq is diverse. On the local level, we can currently talk about the central Iraqi government as a customer. On the regional level, there is Turkey, and Syria could be one of the countries importing KRI's gas in the post-conflict stage. Internationally, according to the visits and speeches of the leadership figures in the Kurdistan Region of Iraq, Europe is the main customer that the Region aims to reach. To achieve this goal, the KRI leadership has undertaken regional and international diplomatic tours, which is what the paper in our hands will attempt to address in the following paragraphs.

5- Formal Diplomacy Initiatives from the KRI for Global Market Engagement

The previous paragraphs have presented a range of information and possibilities related to the natural gas profile of the Kurdistan Region of Iraq. In addition to these analyses, the KRI presidency and the KRG Prime Minister have conducted intensive visits to a group of regional and global countries in an attempt to place the natural gas profile within a temporal framework and regional and international agreements. Among the most prominent and important visits related to the energy file are:

5.1- KRG Prime Minister's Visit to Qatar

The presidency of the Kurdistan Region of Iraq and the head of the KRG have recently made several visits to multiple regional states. Among these was the visit by Prime Minister "Masrour Barzani" to the State of Qatar to achieve several important aims. Chief among these aims is the strengthening of cooperation in diverse energy fields and discussing the gas capabilities of the KRI as well as regional collaboration. The visit also contained an invitation to Qatar to invest in the Region's gas projects, owing to Qatar's experience in this domain. One can discern a Regional desire to coordinate between three primary parties should its gas export plan succeed. These parties are gas-producing countries like Qatar due to its significant role in the global gas market; politically and structurally influential parties like Turkey, being the export gateway; and parties that dictate international politics while also being key energy importers, like the United Kingdom.

As for Doha, the significance of the visit builds upon the shared work between it and Ankara across several regional files. The KRI could also open the door to Qatari investment in the gas sector to fulfill Turkey's needs and to export natural gas, in addition to the good relations Qatar enjoys with Iran. This could aid it, along with the Region, in operating and investing in gas fields based on multi-party understandings.¹⁷

¹⁷ Increasing Qatari Interest in the Kurdistan Region of Iraq: The Goal is to Invest in Gas, Source: Al-Arab Newspaper, Date: 17-02-2022, Link: <https://cutt.us/OqcCI>

5.2- The President of the Kurdistan Region of Iraq's Visit to Turkey

The visit of Nechirvan Barzani, the President of the Kurdistan Region of Iraq to Turkey on the second of February 2022 coincided with several developments. The most significant among them was the preparation for the Russian attack on Ukraine and the discussion about Europe's need to find alternatives to Russian natural gas. This is especially important because Turkey serves as the gateway for the KRI to export natural gas to Europe, in case ideas turn into actual projects on the ground. Turkish President Recep Tayyip Erdoğan spoke about the importance of this visit, saying, "I will be visited on Friday by a special guest, who is Nechirvan Barzani," and later confirmed that he "discussed with Nechirvan the subject of natural gas in the Kurdistan Region of Iraq, and the latter told him that he would consult on this matter with the federal government and do all in his power."¹⁸

Experts see this as part of a series of preparations for signing a joint agreement, similar to the oil agreement concluded between the two sides in 2013. According to Ali Hama Saleh, the chairman of the Energy Committee in the Parliament of the KRI, "by 2025," plans are in place to begin the process of supplying Turkey with gas from the KRI. Here again, the role that the central government of Iraq will play in this file becomes evident. This is especially true as the current direction, according to the decisions of the Federal Court, is towards creating obstacles. This coincides with the decision of the Iraqi Federal Court

¹⁸ The Kurdistan Region of Iraq and the Natural Gas Crisis in Europe, Source: Al-Arab Newspaper, Date: 12-02-2022, Link: <https://cutt.us/1A3Ej>

declaring the unconstitutionality of the Oil and Gas Law in the KRI and demanding that the KRG hand over the entire oil production from its fields.¹⁹ If the KRI succeeds in exporting, it is likely to do so on a limited scale through the existing infrastructure of pipelines. If the sector develops quickly, it could compete to win Turkish supply contracts that become available with the expiration of the natural gas deal between Ankara and Iran in 2026.²⁰

5.3- Masrour Barzani's Visit to the United Arab Emirates

The attendance of the KRG Prime Minister, Masrour Barzani, at the World Energy Forum in Dubai on March 28, 2022, carried distinct significance for the area of energy. While at the international summit, the Prime Minister underscored the Region's potential role in providing energy to both domestic and global marketplaces. He was adamant about making the KRI a pivotal energy center in the Middle East. Additionally, he stated, "In the near future, we will serve as a gas supplier for the rest of Iraq, Turkey, and Europe, aiding in fulfilling their requirements for energy security. We already possess the capability to export oil, which acts as an essential economic artery for us and a potential critical asset for our partners."²¹ During his UAE trip, Reuters quoted the KRG Prime

¹⁹ Ibid.

²⁰ Natural Gas in the Kurdistan Region of Iraq: Market Realities and Geopolitical Opportunities," Source: Washington Institute, Date: 21-01-2021, Link: <https://www.washingtoninstitute.org/ar/policy-analysis/algaz-fy-krdstan-alraq-wqay-alswq-walfrs-aljywsyasyt>. For more on this topic, you can also refer to: "Natural Gas: Another Opportunity for the Kurdistan Region of Iraq," Source: Draw news, Date: 25-10-2020, Link: https://drawmedia.net/page_detail?smart-id=6895

²¹ Masrour Barzani: "We Will Soon Export Natural Gas to Europe," Source: Rudaw, Date: 28-03-2022, Link: <https://www.rudawarabia.net/arabic/kurdistan/280320225>

Minister as saying, "Advancing oil and gas projects in the KRI may not align with the interests of Iran, a key energy producer in the Region."²²

Based on statements from the KRI leadership, it appears that the official participation in a global energy-related event aimed to highlight the significance of the Kurdistan Region of Iraq within the global natural gas map. The remarks also shed light on the current capabilities of the KRI and the challenges hindering the development of this crucial sector for both the Region and the world. This includes issues with the central government in Baghdad and the impact of political disputes on this matter. Additionally, concerns were articulated about parties apprehensive about the project's success due to its effect on their interests, such as Iran, which fears that the KRI may become an alternative energy source for Turkey and Europe.

The visit of the KRG Prime Minister to the UK serves as an extension to the regional and international tours conducted by the KRI's leaders to pave the way for the development of the energy portfolio and to garner global attention through leveraging regional and global developments. British Prime Minister Boris Johnson and KRG Prime Minister Masrour Barzani discussed the energy export file to Europe as a means to reduce dependency on Russian oil and natural gas. Masrour Barzani expressed his aspiration to export energy to Europe.

²² Iraq's Kurds Face Iranian Resistance to Energy Development, PM Says, Source: Reuters, Date: 29-03-2022, Link: <https://www.reuters.com/world/middle-east/iraqs-kurds-facing-resistance-oil-gas-development-pm-2022-03-29/>

According to studies, the KRI's production accounts for 12% of Britain's consumption needs for natural gas, which totals 14 million tons or approximately 40 billion cubic meters annually.²³

It appears that the formal reception of the KRG Prime Minister in Britain and his meetings with various political circles, following his visit to Turkey, highlight British interest in the energy portfolio of the KRI. This is especially relevant given that Britain is currently leading Europe in confronting the Russian invasion of Ukraine and is looking for alternatives to meet energy needs away from Russia. It is evident that the American side is in agreement with this British role in Iraq. KRI leaders recognize that the current opportunity may be both strategic and rare, particularly in capitalizing on present developments and benefiting from Europe's need for a reliable alternative to Russian natural gas. As a result, efforts are being accelerated to develop this sector with the assistance of regional and international parties. These benefiting countries are contributing to resolving disputes between the KRI and the central government, thereby influencing Baghdad to ensure that this issue remains separate from political disagreements.

²³ The Kurdistan Region of Iraq Produces 12% of Britain's Annual Needs: How Will the Region Export Gas to Europe?" Source: Yes Iraq, Date: 21-04-2022, Link: <https://cutt.us/M496L>

6- The Russian Stance on the Energy Portfolio in the KRI

Russia has not overlooked the significance of the energy sector in the KRI. In 2012, Russian companies, Lukoil and Gazprom, entered the Region's energy market by signing contracts for drilling and oil production in the (Karmiyan and Halabja) fields. Following major American companies "ExxonMobil and Chevron", as well as French company "Total", this Russian firm became the fourth major entity to engage in this sector.

In June 2017, at the St. Petersburg International Economic Forum, the KRG and the Russian company Rosneft signed a 20-year contract for cooperation in the exploration and production of hydrocarbon resources. On the 10th of the same year, the agreement was expanded to include the construction of natural gas pipelines capable of transporting an estimated 30 billion cubic meters annually, facilitating the export of the Region's gas abroad.

It's worth noting that Russia maintained a neutral stance during the referendum, unlike other international powers. On October 8, 2017, Russian Energy Minister Alexander Novak announced his approval to connect the energy and oil pipelines in the KRI to the Black Sea. On October 19, 2017, (just three days after the events of October 16), Russia purchased a 60% ownership stake in the KRI-Ceyhan oil pipeline for \$1.8 billion. Furthermore, Rosneft provided a loan of \$1.2 billion to the Region.

On May 15, 2018, at the St. Petersburg International Economic Forum, the Russian company Rosneft signed a new contract with the KRG to develop the gas infrastructure in the Region. These data and facts clearly

demonstrate Russia's interest in the KRI's gas portfolio. Russia has been proactive in influencing this area, introducing its energy companies to compete with American and European ones. This is likely aimed at preventing the KRI from pulling the 'energy card' away from Russia in the future, which is a powerful political leverage that Russia currently employs.

It also seems evident that transforming the KRI's gas into an alternative to Russian gas could be challenging in light of Russian opposition. This is due to the presence of Russian companies in the Region's energy sector and the impact that this could have on Russian interests if moved forward without their consent. Decision-makers in the KRI should be cautious about turning into a party to this international conflict, especially since many Arab countries are hesitant to take clear stances to protect their interests and are unprepared to enter into crises and conflicts that are not part of their immediate concerns."

7-Iranian Concerns Regarding the Development of the Gas Sector in the KRI

It appears that a portion of the pressures and obstacles coming from Baghdad to hamper gas development projects in the KRI originate from outside Iraq's borders. According to many observers, the issue of gas between the KRI and its exports to Europe is perceived by Iran as a direct threat to its interests. This is especially true in light of the Ukrainian crisis

and Europe's search for alternative gas sources. Iran is one of the major objectors to the matter of gas and oil in the KRI, opposing its development, production, and the achievement of autonomy and ease in exporting it abroad. Iran, on the other hand, is engaged in destroying Iraq's infrastructure, preventing its development, and maintaining a policy of turning Iraq into a consumer market. It also exerts pressure to prevent the emergence of alternatives to itself. Furthermore, the Iran-aligned factions in Iraqi politics reject Iraq's independence because they understand that their political and security roles, along with their economic privileges, will weaken in proportion to the diminution of Iranian influence in the Iraqi landscape.

The perspective reinforcing this view is the correlation between the bombardment of Erbil, the capital of the Kurdistan Region of Iraq, by the Iranian Revolutionary Guard using intelligent ballistic missiles in mid-February 2022, and the developments in the gas dossier within the Region. Energy affairs researcher (Bahroz Jafar) opines that Iran executed this maneuver with Russian cognizance, given that Iran and Russia maintain a strategic alliance, a mutual adversary, and potent, efficacious relations between their respective intelligence services.

The universal recognition of the importance of Soleimani's visit to Russia—to persuade Putin to engage in the Syrian dossier—underscores the robustness of the relationship between the two parties. Russia is cognizant that 40% of the oil pipelines in the Kurdistan Region of Iraq are owned by Kar Group, belonging to Sheikh Baz al-Barzani, while Rosneft, the Russian company, owns the remaining 60%. It is manifestly evident that both Russia and Iran would find it arduous to countenance

the presence of an alternate entity furnishing natural gas and oil to the Western sphere outside their ambit.

Days after the bombardment, Baz Karim Al-Barzanji, the CEO of the Kar Group of companies, revealed in an interview with Voice of America that 'the current gas pipeline that the KRG intends to extend, and implement will be dedicated 100% to the Region's infrastructure. The first phase of the infrastructure for the Region has no relation to the export of gas outside the Kurdistan Region of Iraq. The amount of gas produced by the KRI is not significant and is not for export as it is used to meet the internal needs of the Region.

Clearly, this declaration following the Iranian assault serves as a message of reassurance to the Iranian side, dispelling concerns about the gas dossier in the KRI. It appears that the stakeholders involved in this dossier within the Region have become cognizant of Iran's deep apprehensions regarding the growth of the gas sector and its potential long-term implications on Iran. Subsequent to this, specifically on April 6th, a series of missiles landed near the Kar Company-operated Karkuk refinery in Erbil. Despite the absence of material or human casualties, the attack ostensibly conveys an economic message to decision-makers in the Region, particularly those engaged in the development of the energy sector. This sector is increasingly emerging as an alternative and competitor to Iranian gas in both the regional and global context. The attack took place just a week after the Kurdistan Regional Government's Prime Minister announced at an Energy Conference in the United Arab Emirates the Region's imminent plans to commence natural gas exports to Europe, thereby positioning the KRI as a focal point for energy in the Region.

8- Targeting the Kormor Gas Field Jeopardizes Energy Projects in the KRI

The targeting of the "Kormor" gas field began on the 22nd of June 2022, when a Katyusha rocket was fired from an unknown location towards the Kormor gas field, causing no injuries. The attack was repeated on the 24th of the same month by targeting the field more deeply. Dana Gas confirmed that the attacks did not disrupt production.

The most significant gas field in the KRI endured four rocket attacks within a single month. The Joint Chiefs of the Peshmerga Forces successfully thwarted an attempted assault on the "Kormor" field and discovered a vehicle that had been intended for executing the attack via rocket projectiles.

The launch locations of the rockets are situated in areas under the control of armed factions, such as Asa'ib Ahl al-Haq and Hezbollah Brigades. The nature and timing of the attacks appear to send explicit political messages to the KRG, specifically regarding the development projects in the energy sector. The focus is on meeting domestic requirements and potentially exporting abroad, which would reduce dependency on foreign imports, thereby directly affecting Iran's projects in Iraq.

Conclusion

Natural gas holds significant strategic importance for the Kurdistan Region of Iraq, and many experts link it to the future of the Region, provided the issue is managed in an institutional and transparent manner. The gas sector has the potential to meet the energy needs of both the Region and Iraq and to export it abroad. It could also help resolve the financial issues facing the KRG. Additionally, this issue provides an opportunity for the KRI to further develop its relations with Turkey and Europe, by preparing to supply them with gas, coinciding with the global crises occurring in the aftermath of Russia's invasion of Ukraine.

The development of infrastructure must synchronize with justice in the distribution of resources, more effective governance, and combating corruption, particularly in revenue sources. This aims to establish a strong and ideal economic model capable of facing challenges and economic crises. This will assist in increasing the economic autonomy of the Kurdistan Region of Iraq and prevent political parties in Baghdad from exploiting the economic portfolio to exert pressures on the Region. The Kurdistan Region of Iraq is cautiously and deliberately working on this portfolio, as it could impact the existing security and stability in the region if the gas development in the KRI clashes with Iranian or Russian interests. The balance of power leans toward these countries, which have the capability to create problems for the region in order to hamper the development of the energy portfolio.

Leaders of the Kurdistan Region of Iraq are focusing on leveraging the gas portfolio to strengthen the region's standing on both regional and international levels, and to increase its strategic weight by drawing global

attention to this portfolio through capitalizing on related developments in the energy sector on an international scale.

The KRI possesses expertise and experience in attracting international companies and investment in gas fields and developing the energy sector, in contrast to the central government in Baghdad, which has failed to develop the gas sector. Instead, it has relied on foreign imports, especially from Iran, to meet domestic needs for gas and electricity, without considering the exploitation of domestic resources to reduce dependence on external imports.

Important Note:

The original Arabic version of this research paper was written at the beginning of 2023, and weeks after the paper was published, many changes occurred in the field of energy in the KRI, most notably the decision of the Federal Court in Iraq, which was issued in February 2023 and ruled that the oil and gas law of the Kurdistan Regional Government was unconstitutional, in addition to Iraq winning a case. International arbitration against Turkey took place in a Paris court in March 2023, according to which Baghdad stopped exports of crude oil from the KRI to Turkey via the pipeline. Despite these developments, which may affect the energy and gas file in the future, the paper remains an essential reference for understanding the dynamics of the gas file in the Kurdistan Region of Iraq.

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