Transforming the Kurdistan Region's Energy Landscape in 2025: Reaching Daily Production of Over One Billion Cubic Feet of Natural Gas

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Summary : It is planned that next week, Dana Gas and its partners will conduct the first initial pre-production gas testing of the Khor Mor natural gas production expansion project, known as KM250. Subsequently, they will move to the production phase, increasing daily production by 250 million cubic feet of gas to 540 million cubic feet of gas for the company's operations at the Khor Mor field. This will bring the level of natural gas production in the Kurdistan Region to over 1 billion cubic feet per day.

Overview

It is planned that next week, the UAE-based Dana Gas and its partners will conduct the initial pre-production testing of the Khor Mor natural gas production expansion project, known as KM250. Subsequently, they will move to the production phase, increasing daily production by 250 million cubic feet of gas to 540 million cubic feet of gas for the company's operations at the Khor Mor field in Sulaimani province. This is set to bring natural gas production in the Kurdistan Region to over 1 billion cubic feet per day.

According to Dana Gas's latest announcement, the KM250 project will be completed earlier than the announced timeframe, and initial work for the Chemchemal field has progressed, with the aim of producing 75 million cubic feet per day. This means that with just these two gas fields, from early next year, the Kurdistan Region will reach the production of 865 million cubic feet of natural gas per day. This will make the Khor Mor field one of the largest gas projects in the Middle East and North Africa region, comparable to the Khazzan gas project in Oman, Zohr in Egypt, and Leviathan in the Mediterranean Sea off Israel's coast.

In mid-May, the Kurdistan Region's acting natural resources minister signed two major agreements in the gas and oil sectors in Washington, and indicated that the Iraqi-Kurdish oil company KAR Group produces 120-130 million cubic feet of gas from the Khurmala oil field. If the Miran and Topkhana fields also reach production levels, then the Kurdistan Region will surpass Iraq in terms of gas production.

Now, the main question is whether or not reaching production of over 1 billion cubic feet of gas in this short period can place the Kurdistan Region into new energy balances in this region and save Iraq from importing Iranian gas and Turkish electricity.

The Kurdistan Region's chances of meeting the target

The gas fields of the Kurdistan Region, excluding the fields in Kurdish areas outside the Kurdistan Region's administration, or Article 140 areas, number five, with a total gas reserve of 26 trillion cubic feet. One of the fields is currently producing gas - the Khor Mor field, (Qamar Energy, 2021).

Additionally, there are five associated oil-gas fields in the Kurdistan Region with gas reserves reaching over 7 trillion cubic feet, and currently, three of these fields produce gas daily. Qamar Energy, 2021)

Thus, the total natural gas reserves of the Kurdistan Region, whether in natural gas fields or those associated with oil, reach over 33 trillion cubic feet, where the level of investment is progressing daily. Five oil and gas fields in the Region are set to approach the level of gas production of the entirety of Iraq by the end of this year.

The KM250 project development work has progressed toward completion and is in the final testing phase, according to Dana Gas. In the coming months, Dana Gas and its partners are set to bring gas production levels at Khor Mor and Chemchemal to approximately 865 million cubic feet of gas per day. Additionally, KAR Group produces between 120-130 million cubic feet of gas daily from the Khurmala field. WesternZagros and Gazprom produce approximately 10 to 15 million cubic feet of gas daily from the Sarqala field, and DNO's daily gas production level reaches 20 million cubic feet, but it is reinjected for use in oil production. In this way, the total gas production in the Kurdistan Region reaches

approximately 1.025 billion cubic feet per day, while according to OPEC and Energy Institute (EI) data, Iraq produces approximately 1.15 billion cubic feet of gas daily.

The Kurdistan Region's approach to Iraq's level in terms of natural gas production is due to the development of gas fields and the reduction of associated gas flaring from oil fields, at a time when, in July of this year, the World Bank published its annual report on associated gas flaring from oil and gas fields worldwide. According to the report, for the third consecutive year, the West Qurna-2 oil field in Basra ranks first globally among more than 15,000 fields with flaring of 1.64 billion cubic meters, and in 2024, Iraq ranked third globally for associated gas flaring, reaching 18.18 billion cubic meters.

Another difference between Erbil and Baghdad regarding gas is in terms of timing. According to EI data, Iraq has been producing gas since 1970, with production of 0.07 billion cubic feet. In 2007, the production level was 0.44 billion cubic feet, and last year, the daily production level reached 1.15 billion cubic feet. In contrast, the Kurdistan Region produced zero gas before 2007, and in 2008 it reached 78 million cubic feet daily. Last year, the Region's production was approximately 0.7 billion cubic feet daily, and by the end of this year, it is set to reach over 1 billion cubic feet per day.

In May, two new contracts were signed with HKN and WesternZagros in Washington for investment in the Miran and Topkhana fields. If the work of these two contracts also progresses, then in the coming years, the Kurdistan Region will surpass Iraq in terms of gas production and can emerge among gas-producing and exporting countries as a new supplier of this type of energy, which the world needs for the post-oil phase and the era of energy transition.

Khor Mor compared with other Iraqi gas fields

According to a report by the US Energy Information Administration (EIA) last month, Iraq's total gas reserves are approximately 131 trillion cubic feet, and the production level compared to reserves can be said to be zero or a rate of 0.00087 percent. Meanwhile, the Kurdistan Region's total reserves are 33 trillion cubic feet, but the production level by the end of this year will reach 1.025 billion cubic feet, meaning that while the Region's reserves constitute one-quarter or 25.19 percent of Iraq's gas reserves, its production level has reached close to Iraq's, despite the fact that only in 2024, 48 percent of Iraq's investment budget went to the oil ministry, amounting to more than $12 trillion.

This advancement in the Kurdistan Region's natural gas investment traces back to the story of Khor Mor and Crescent Petroleum company and its partners, who started in 2008 and have continuously invested in it.

The development of the Kurdistan Region's gas fields, unlike Iraq, does not have a long history and go back five decades. In fact, it does not even go back two decades. It began in 2008 with daily production of 78 million cubic feet to 810 million cubic feet of natural gas, 127 million cubic feet of condensate gas, and 105 million cubic feet of liquefied petroleum gas (LPG) by the end of this year, as shown below.

Graphic 1: The level of gas, condensate, and LPG production in Khor Mor from the beginning until after the KM250 project

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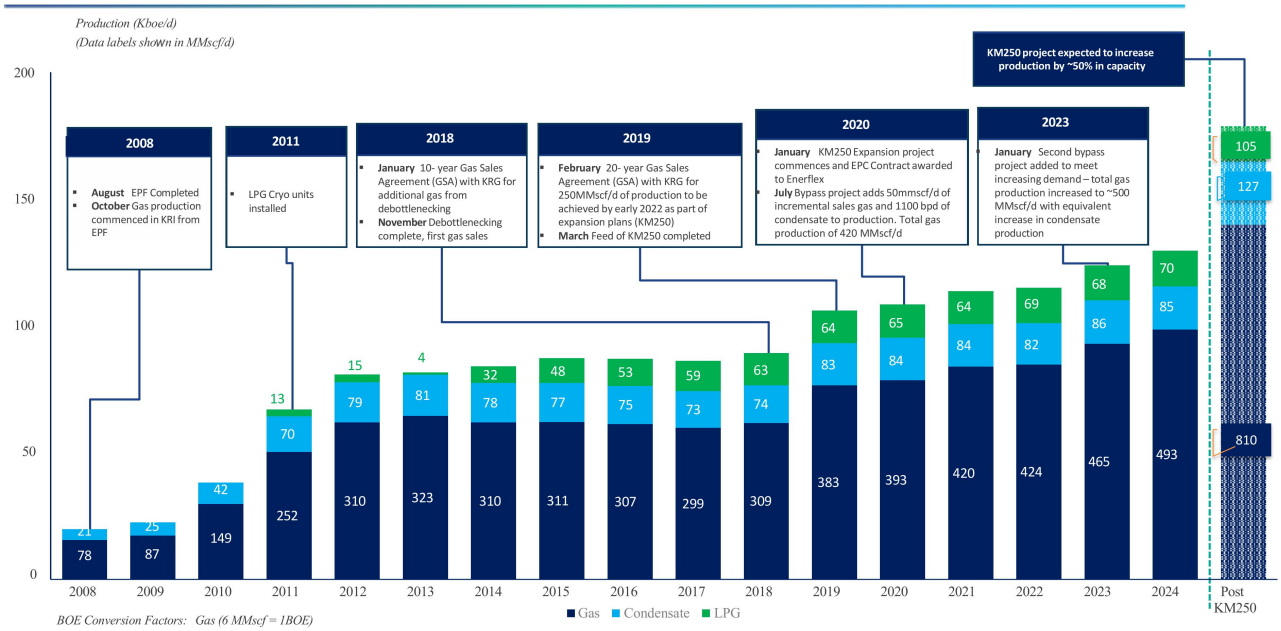

Source: Dana Gas, Corporate presentation, March 2025, (Accessed: 7 August 2025).

Conclusion

The test that Dana Gas and its partners reportedly plan to conduct is known as "Pressure Testing Pipe with Nitrogen" and is the final phase, after which preparations are made for production. Therefore, Dana Gas indicated in its first quarter 2025 financial report that it will commence gas production from KM250 and increase the gas production rate from Khor Mor by 50 percent for all three types of gas production.

In Qamar Energy's 2021 report for the U.S. Department of Energy regarding the Kurdistan Region's natural gas, it was indicated that after meeting domestic needs, the first option for the Kurdistan Region's natural gas export is to Iraq, then Turkey, and other countries.

Also, since 2019, the KM250 gas sales agreement between Dana Gas and the Kurdistan Regional Government (KRG) has been signed, and last year, Dana Gas and its partners negotiated gas sales to Iraq, but after the KRG's concerns and drone attacks, this issue was postponed. Now, the question is how the addition of 250 million cubic feet of gas will revive this issue. Will Dana Gas and its partners work directly with Baghdad as before, or will the KRG, Baghdad, and companies conduct trilateral negotiations together?

According to EI data for 2024, the difference between production and demand for natural gas in Iraq is 750 million cubic feet per day, despite all signed contracts and projects of the oil ministry during this cabinet's term.

Iraq can benefit from this advancement and development of the Kurdistan Region's natural gas in two ways: either buy the gas and transfer it to electricity generation stations as it attempted in the past for purchasing for electricity generation stations like Kirkuk, or buy electricity from production companies in the Kurdistan Region, because increased natural gas in the future will enable the Kurdistan Region to produce more electricity due to infrastructure that can produce up to 8,000 megawatts and double or triple the level of sales to Iraq.

Another reality about the natural gas investment sector is that it is very complex and long-term, and requires significant capital. The Kurdistan Region potentially reaching close to the amount produced in Iraq over five decades in less than two decades, and becoming one of the pioneering natural gas production projects in this region and the Middle East means that federal Iraq will certainly shift from being an observer of gas-exporting countries to being a natural gas supplier in the coming years. However, it should not be overlooked that this expansion was delayed for three years due to security conditions, so this transformation requires ensuring security and safety now and in the future.

Finally, the continued development of this sector in the Kurdistan Region can establish its position as a new energy source in the era of energy transition and become a factor in distancing or reducing Baghdad's dependence on Tehran's gas and Ankara's electricity.

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