AUIS

American University of Iraq, Sulaimani
Dhia Jafar Center
for Energy & Natural Resources



IRAQ ENERGY OUTLOOK

ISSUE 3 - NOV 2026

QUARTERLY PUBLICATION

A publication of
Dhia Jafar Center for Energy and Natural Resources
at the American University of Iraq, Sulaimani

EDITORIAL TEAM

Editor-in-Chief
Mohammed Hussein

Managing Editor
Kavi O. Ali

Design and Digital Production
Ahmed Ibrahim

Publisher
Dhia Jafar Center for Energy & Natural Resources

About the Publisher
The Dhia Jafar Center for Energy & Natural Resources at the American University of Iraq, Sulaimani (AUIS) is dedicated to advancing research and policy dialogue on Iraq's energy sector and its role in economic development

About the Publication

Iraq Energy Outlook is a quarterly magazine providing independent, policy-oriented analysis of Iraq and the Kurdistan region's energy sector. It covers developments across oil, gas, electricity, and renewable energy, with a focus on economic trends, institutional reform, and the broader implications for Iraq's development.

The publication aims to present complex energy issues in a clear and accessible manner, supporting informed discussion among policymakers, industry professionals, and researchers.

Table of Contents

5 *In This Issue*

6 *Iraq's Energy Paradox: Rich in Gas, Short of Power* (Kate Dourian)

6 A Chronic Problem Becomes an Immediate Crisis

8 Flaring Rises Despite Repeated Reduction Targets

10 The Oil-First Model: Putting the Cart Before the Horse

11 Power Shortages are the Immediate Cost

13 Projects Begin to Close the Gap

15 Kurdistan Can Provide Part of the Solution

16 Imports Remain Necessary But Cannot Be the Strategy

17 A Narrower Fiscal Margin

18 What Must Change?

20 *Where Does Iraq's Oil and Fiscal Recovery Stand?* (Mohammed Hussein)

21 Oil Export Disruption and the Fiscal Recovery Gap

22 Fiscal Endurance Amid Policy Dilemmas

23 The Cost of Baghdad's Resilience

25 Implications for the Energy Sector and Investment Climate

26 Conclusion

28 *Towards an Integrated Energy System Model for Iraq* (Ahmed Gailani)

28 The Consequences of Fragmented Energy Planning

30 What a National Energy System Model Does?

32 How the Model Turns Data into Decisions?

33 A National Boundary With Two Area Systems

34 The Questions a National Model Can Test

36 From Evidence to an Investable National Plan

37 Making Whole-System Modelling Routine

40 *Energy in Numbers: The Cost of Iraq's Gas Flaring*

47 What Do the Numbers Tell Us?

49 *Energy Developments in Context*

49 Fuel Sector Reform Triggers Political Backlash

53 Iraq Continues South-to-North Efforts to Expand Oil Exports Through the ITP

57 Fuel Products' Crisis Continues Across Iraq

61 Iraq Eyes Higher Oil Exports to Cope with its Fiscal Strains

In This Issue

IEO'S EDITORIAL TEAM

The third issue of the Iraq Energy Outlook (IEO) is published with the Middle East still in conflict. The fighting — and the uneasy no war/no peace standoff that followed — restricted shipping through the Strait of Hormuz, the route for most of Iraq's oil exports. It also threw the management of the oil sector and the government's finances into disarray. Iraq's federal government has come through the crisis, but the bill is steep. Its fiscal buffers are thinner, its public services are weaker, its energy supply is less secure, and the country as a whole is less stable.

This issue asks how these shocks have compounded Iraq's older, structural weaknesses. In "Iraq's Energy Paradox: Rich in Gas, Short of Power," Kate Dourian looks at a country that burns what it needs and buys what it already has. In 2025, Iraq flared 24.1 billion cubic meters (bcm) of gas while importing gas from Iran, a supplier that has repeatedly let it down. Dourian traces the problem to the oil-first licensing rounds in the late 2000s, which treated gas as an afterthought. The price of that mistake has been billions of dollars of wasted resources and decades of power shortages.

Mohammed Hussein asks how much Iraq has regained during the conflict in "Where does Iraq's Oil and Fiscal Recovery Stand?" On the surface, a lot. Exports climbed from 246,000 barrels per day (bpd) in May to 2.96 million bpd in September and monthly revenues are back at more than 7 billion USD. Look closer, though, and prices did most of the lifting, not volumes. Public finances have not followed, with revenues still failing to cover the state's running costs. Meanwhile, investment spending has been cut by more than three-quarters and reserves are lower.

Ahmed Gailani's "Towards an Integrated Energy System Model for Iraq" argues that the country's planners need to see the whole energy-system before they spend. A national model spanning federal Iraq and the Kurdistan Region will show how investments depend on one another. Used properly, this modelling will help to curb waste, spend scarce public money more efficiently, and ease power shortages.

The Energy in Numbers section puts figures to Iraq's flaring problem. Iraq burned 24 bcm in 2025, about 14% of the world's total flaring waste. Per barrel of oil production, Iraq flares about 15 times as much gas as the UAE and more than 20 times as much as Kuwait or Saudi Arabia. The gas it wastes could in theory sustain 14–15 gigawatts (GW) of continuous generation, against about 4 GW from the gas that it imports from Iran.

Finally, Energy Developments in Context covers four live stories. The first is the Cabinet's decision in August to charge state refineries closer-to-market prices for crude, which provoked strikes and a backlash in Parliament. The second is the trucking of southern crude north to the Iraq–Türkiye Pipeline (ITP) under a new one-year deal with BOTAŞ, a costly stopgap that strengthens the case for the Basra–Haditha pipeline. The third is a fuel shortage that began in the Kurdistan Region and has since spread to Baghdad, Basra, and Kirkuk. The last is the 2027 draft budget, whose assumption of 4 million bpd in exports looks ambitious and could test Iraq's relations with OPEC+.

Iraq's federal government has come through the crisis, but the bill is steep.

Iraq's Energy Paradox: Rich in Gas, Short of Power

Flaring, Import Dependence, and the Cost of Delayed

By Kate Dourian

A fellow of the Energy Institute and non-resident fellow at the Arab Gulf States Institute in Washington.



Iraq flared 24.1 billion cubic meters (bcm) of gas in 2025 while importing gas from Iran, which has proved an unreliable supplier over the years. The 2026 war has exposed the fiscal and power sector consequences of that failure. At the same time, lower oil revenues threaten funding for the infrastructure needed to decrease flaring and improve Iraq's self-reliance.

A Chronic Problem Becomes an Immediate Crisis

Iraq holds one of the world's largest natural gas resource bases, yet it imports gas and electricity from Iran while burning large volumes of associated gas at its oil fields. This contradiction has persisted through successive governments. The regional conflict that began on February 28, 2026 has turned the issue from a long-standing structural weakness into an immediate threat to public finances and electricity supply.



Gas processing equipment, tall exhaust stacks and connecting pipelines at a Basrah Gas Company facility. Photo credit: Basrah Gas Company.

This is the central issue facing the sector. Iraq does not lack gas. It holds 3.7 trillion cubic meters (131 trillion cubic feet (tcf)) of natural gas, according to its submission to the Gas Exporting Countries Forum in 2024.[1] However, it lacks a system that consistently captures, processes, and delivers the resource to users. Several projects are beginning to address the gap, but they come after years of missed deadlines and will take time to reach full capacity.

Disruption to oil exports through the Strait of Hormuz has reduced the government's main source of income. Oil normally provides more than 90% of federal revenues, leaving Iraq with few fiscal shock absorbers when export volumes or prices fall. Unlike neighboring Gulf producers, it has neither a diversified economy nor a large sovereign wealth fund that can readily support spending in the face of prolonged interruption. The result is a direct connection between lower oil receipts and the state's ability to pay salaries, fund fuel purchases, and finance energy infrastructure.

The link between oil revenues and Iraq's budget matters for the gas sector. Capturing associated gas requires gathering systems, compressors, processing plants, and pipelines. Making productive use of it also requires efficient power plants, transmission lines, and distribution networks. These are multi-year investments whose budgets become vulnerable when oil income falls. Grid rehabilitation is particularly exposed, even though technical and commercial losses mean that a large share of the electricity generated in Iraq never reaches a payingcustomer due to pervasive non-payment of bills by consumers.

The conflict has also restricted Iranian gas supplies and delayed alternatives, including electricity imports through the Gulf Cooperation Council Interconnection Authority (GCCIA) and plans to receive liquified natural gas (LNG). Lower crude production has compounded the shortage because most Iraqi gas is associated with oil.

When oil fields are shut in because crude cannot reach export markets, gas production falls as a result. Iraq has therefore lost export revenue and a potential source of domestic fuel supply at the same time.

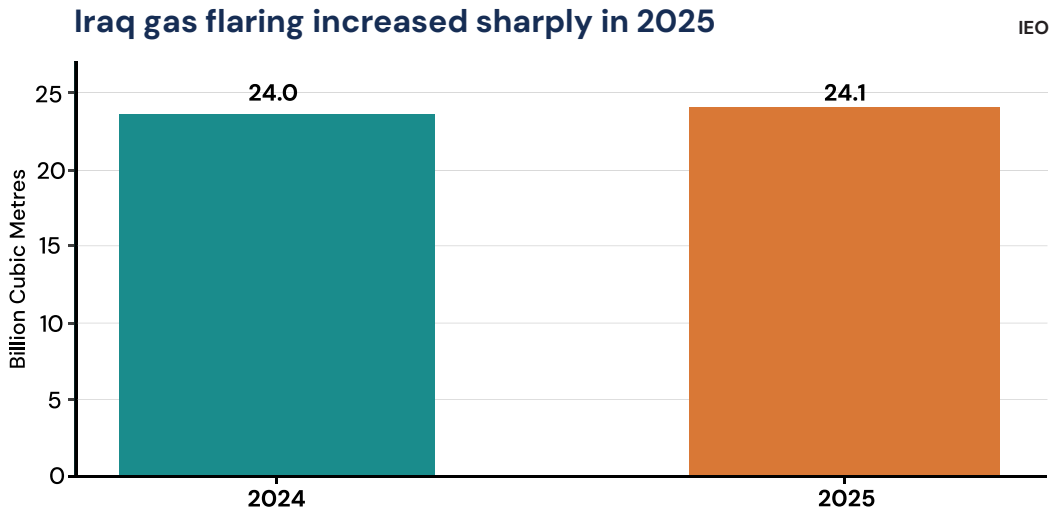
Making productive use of the gas requires efficient power plants, transmission lines, and distribution networks. These are multi-year investments whose budgets become vulnerable when oil income falls.

Flaring Rises Despite Repeated Reduction Targets

The World Bank's Global Gas Flaring Tracker, published in June 2026, estimates that Iraq flared 24.1 bcm of gas in 2025, an increase of less than 1% from 2024, indicating a possible levelling off of volumes.[2] However, the number is slightly misleading as it includes flaring from oilfields, refineries, and industrial users in both federal Iraq and the semi-autonomous Kurdistan Region. The small increase in 2025 also reflects the resumption of oil production in the Kurdistan Region last year. Still, the 2025 total was roughly four times the volume of gas imported by the country. Moreover, it placed Iraq among the world's largest flaring states, the World Bank noted.[3] The disruption to Iraq's oil production in 2026 as a result of the US-Iran war will likely show a sharp decline in the volume of gas flared, although it will likely not constitute a trend.

Although negligible, last year's increase does not support the argument by Iraqi officials that progress has been made to reduce gas flaring in recent years. The World Bank estimates that in 2024, Iraq imported 9 bcm of gas from Iran. Volumes fell to 6 bcm in 2025, far below the contractual volumes because Iran's internal demand left it with little spare gas to export. Even before the war, Iraq was often unable to pay for Iranian gas and electricity supplies because of US sanctions on financial transactions with Tehran. This meant that supplies were irregular and halted entirely at times. The recent conflict has reduced Iranian flows significantly. The World Bank estimates that imports fell by 70% because of the conflict, which has caused damage to Iranian gas facilities.

Figure 1: Iraq flared 24.1 bcm of gas in 2025, up from 24.0 bcm in 2024.



Source: World Bank Global gas flaring tracker reports for 2025 and 2026.

That is the central paradox of Iraq's energy economy: burning a resource it desperately needs while paying a neighboring state under US sanctions to supply a fraction of what it wastes.

There is also an environmental cost. The Energy Institute's Statistical Review of World Energy 2026 shows that Iraq's carbon dioxide emissions from natural gas flaring were the second-highest in the Middle East after Iran. Emissions have come down only marginally since 2015, from 54.6 million metric ton (MT) to 47.6 million mt in 2025.[4] This would indicate that despite efforts to reduce flaring, much more needs to be done to capture associated gas and mitigate the environmental impact of emissions.

Successive governments have repeatedly postponed the date for ending routine flaring. Targets have moved from 2022 to 2025 to 2028 and now to early 2029. Former Prime Minister Mohammed Shia' al-Sudani's government announced substantial reductions at selected fields, but national data shows that new oil production and inadequate processing capacity continue to overwhelm the gains.

The volume wasted comes at a huge financial and environmental cost. Gas that could fuel power plants is burned while the government pays for imported energy. Flaring produces carbon dioxide and methane emissions and exposes communities around producing areas, particularly in Basra, to persistent air pollution. It also removes a potential feedstock for fertilizer, petrochemicals, and other industries that could create employment outside the public sector.

A techno-economic assessment published in Energy Policy in 2026 estimated that gas flaring in Iraq causes potential electricity losses of –8,000 10,000 megawatts (MW) and annual economic losses of 2–1$ billion, peaking near 3.3$ billion in 2022.5 The actual numbers vary depending on the quality and location of the gas and on the availability of processing and transport infrastructure, but nevertheless indicate the scale of the opportunity cost: flaring is not simply an environmental problem, but a loss of usable energy and industrial value.

The increase in flaring also exposes a basic tension in Iraq's oil policy. Baghdad wants to raise crude oil production capacity and output, but each additional barrel from mature southern fields can produce more associated gas. Unless gas-handling capacity grows at least as quickly, higher oil production adds to flaring or forces operators to constrain crude output. Gas investment is therefore required not only for electricity supply, but also to sustain Iraq's oil ambitions.

Iraq's carbon dioxide emissions from natural gas flaring were the second-highest in the Middle East after Iran.

The Oil-First Model: Putting the Cart Before the Horse

The origins of the imbalance lie in the first post-2003 licensing rounds. Contracts awarded in 2009 and 2010 concentrated on restoring and expanding crude production. International oil companies were paid remuneration fees linked to the number of barrels produced, while the infrastructure and commercial arrangements needed to gather associated gas were not developed at the same pace. Oil output rose from around 2.5 million barrels per day (bpd) to more than 4 million bpd, but flaring became embedded in the operating model. What this amounted to was putting the cart before the horse with gas as an afterthought to oil. While this was initially understandable, given that Baghdad was rebuilding its battered energy sector, the issue was not addressed by subsequent governments.

Gas was treated as a by-product rather than as the basis of a separate value chain. Responsibility was divided among oil operators, state gas companies, electricity producers, and government ministries. Regulated prices and uncertain payment arrangements weakened incentives to invest, while political disputes and procurement delays slowed projects that had been approved. Later licensing rounds placed more emphasis on non-associated gas, particularly in Anbar, Basra, and Diyala, but they could not quickly correct the absence of gathering and processing capacity in the massive oil fields in the main producing region of southern Iraq.

Iraq's financial system is characteristic of a rentier economy. Oil exports are virtually the sole revenue generator for the budget. Productive sectors outside the hydrocarbons sector remain limited. A bloated public payroll takes up a disproportionate chunk of state spending, leaving little spare for vital projects. This makes Iraq comparatively more vulnerable to oil price fluctuations than its regional peers, most of which have more diverse economies and stronger fiscal buffers to withstand lower oil prices.

During periods of high oil prices, oil income tends to reduce pressure on the state to collect electricity bills, reform tariffs, or create a commercially viable domestic gas market. When oil revenue is interrupted, the state has lower income and tends to postpone capital spending, reinforcing the infrastructure weaknesses that increase its dependence on hydrocarbons.

Iraq's Gulf neighbors are also hydrocarbon producers, but most have built larger financial reserves and more diversified domestic economies. They captured associated gas earlier and used it for power, desalination, fertilizer, aluminum, and petrochemicals. Iraq instead imported energy while much of its own gas was flared.

The comparison is not exact. Iraq has a much larger population, a legacy of war and sanctions, and more fragmented institutions. Nevertheless, the absence of fiscal and industrial buffers is now a major source of vulnerability.

When oil revenue is interrupted, the state has lower income and tends to postpone capital spending.

The Gulf Cooperation Council (GCC) states, led by Saudi Arabia and the UAE, have also invested in renewable energy, which means less gas is required for power generation. In the UAE's case, nuclear power now accounts for 22% of power generation.

When it comes to renewable energy, Iraq's Ratawi project incorporates solar power, but the country lags behind its neighbors despite its massive solar potential.

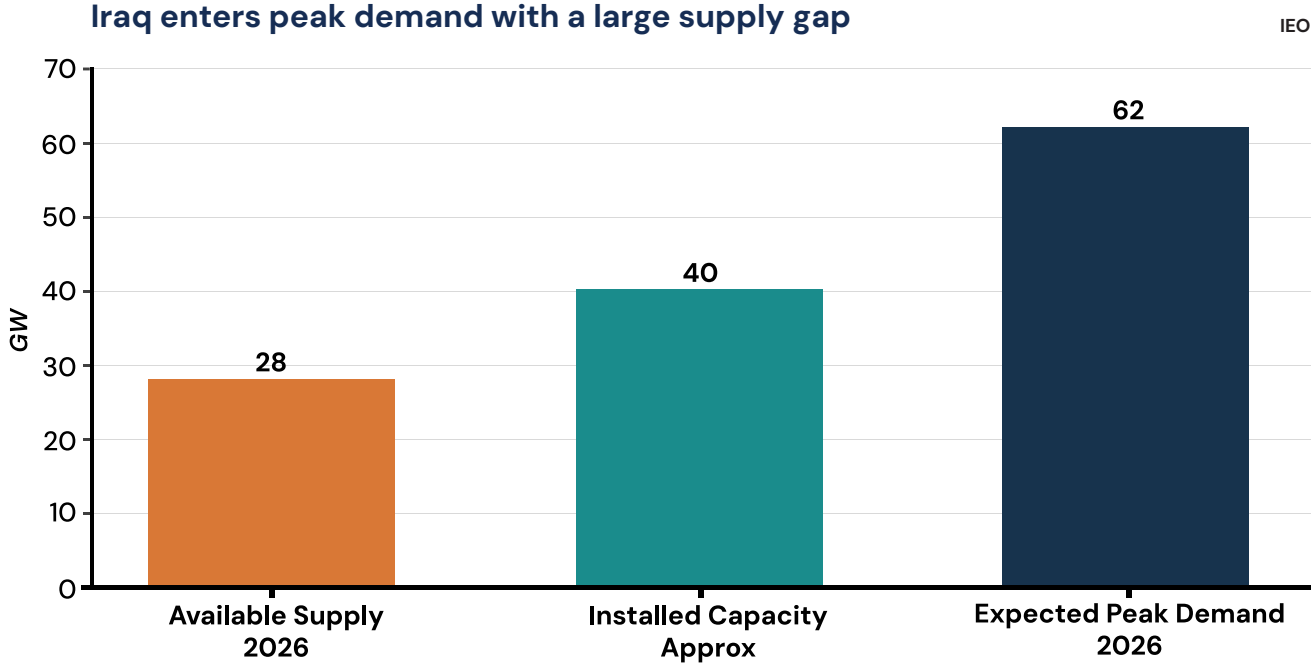
The failure to develop petrochemicals represents another lost opportunity. For more than a decade, Shell and the Iraqi government discussed using the proposed complex at Nebras to process domestic feedstock into useable chemicals, before it was ultimately shelved.[6] Iraq lost not only a potential source of non-oil exports, but also the industrial infrastructure, skilled employment, and downstream demand that could have given captured gas a higher value than power generation alone.

Nebras did not fail because of a lack of feedstock, but because of the wider problems that have held back large gas-based industries: uncertain commercial terms, fragmented decision-making, weak infrastructure, and an investment climate where projects can remain under discussion for years. The episode is a warning that capturing gas will not by itself diversify the economy. Iraq must also establish reliable feedstock supply, transparent pricing, and credible long-term contracts for industrial users.

Power Shortages are the Immediate Cost

Electricity is where the consequences of the gas shortfall are most visible. Iraq's power system has expanded, but demand has risen faster and much of the country's installed capacity is unavailable because of fuel shortages, technical problems, and maintenance. Government projections put peak demand at about 62 GW in 2026, against roughly 40 GW of installed capacity and maximum available supply of around 28 GW. The implied deficit is 34 GW.

Figure 2: Nameplate capacity overstates the electricity available to meet peak demand.



Source: Iraqi government and MEES reporting. Installed capacity includes units unavailable for fuel or technical reasons.

The shortage is aggravated by one of the world's least efficient grids. Estimates vary by methodology, but the International Monetary Fund (IMF) assessed distribution losses in 2024 at 55%, citing theft and illegal connections that it said led to "significant financial losses." It noted that the government was taking measures, including deployment of smart meters and improving collection of bills, but these needed to be accelerated to achieve results. "Once collection substantially improves, achieving cost recovery will also require electricity tariff increases, with carefully calibrated subsidies targeted to low-income users. Recent disruptions in electricity imports from Iran further underscore the need for diversified supply and the development of gas projects," the IMF stated in its Article IV report in 2025.[7]

Yet these are precisely the investments at risk when oil revenues fall. Transmission and distribution projects compete with salaries, pensions, subsidies, and emergency fuel purchases. This year's export disruption is likely to narrow the capital budget and delay work needed to reduce losses. The fiscal shock perpetuates the power shortage: lower oil income restricts grid investment, inefficient networks waste more electricity, and the government must spend more on fuel and temporary supply. Households and businesses fill the gap with neighborhood diesel generators. This service is expensive and polluting and firms must bear an extra cost above their normal utility bills. Power shortages therefore reduce industrial competitiveness and make it harder to build the non-oil economy to protect Iraq from future oil shocks.

Extreme heat adds pressure on both sides of the system. Cooling drives the summer consumer demand peak, while high ambient temperatures reduce the efficiency of thermal plants and transmission equipment. Shortfalls in pipeline gas force power stations to burn crude, fuel oil, or gasoil where technically possible. These are less efficient, increase pollution, and divert saleable or imported products into domestic generation.

Before the conflict, Iran supplied as much as around 1.3 billion cubic feet per day (cfd) of gas to Iraqi power plants, alongside electricity exports. These flows were already vulnerable to Iranian seasonal demand, payment disputes, and US sanctions.
Their reduction in 2026 exposed the lack of dependable substitutes. Imports can bridge part of the gap, but they cannot replace the need for domestic gas capture and a functioning national network.
Because gas-fired plants account for the majority of installed capacity, shortages of gas have a direct impact on the power sector, which operates below its load factor even under normal circumstances. The adoption of combined-cycle power plants has been slow and remains limited.

Cooling drives the summer consumer demand peak, while high ambient temperatures reduce the efficiency of thermal plants and transmission equipment.

Projects Begin to Close the Gap

The most important existing gas-capture operation is Basrah Gas Company(BGC), a 25-year joint venture between the state-owned South Gas Company(51%), Shell (44%) and Mistubish (5%). BGC gathers and processes associated gas from Rumaila, West Qurna 1-, and Zubair. It claims processing capacity has risen from an initial level of 250 million cfd when operations began in 2013 to around 950 million cfd today, producing dry gas for power generation as well as LPG and condensate. However, the BGC is operating below its design capacity because some of the raw gas is diverted to power plants at southern oil fields operated by international oil companies.

BGC demonstrates that large-scale capture is possible when production, processing, and sales are integrated. Its output can fuel around 3.5 GW of generation, according to the company, and helped turn Iraq from an LPG importer into an exporter. But the three fields covered by the venture account for only part of southern production and gathering constraints mean that gas is still flared even within its operating area. Further expansion requires substantial financing and coordination with oil field development.

Basrah Gas Company has increased the volume of gas it captures and processes fourfold during its first decade of operation, from around 250 million cfd to 1 billion cfd. It now accounts for around 80% of Iraq's processed gas and 95% of its LPG production. The company aims to raise processing volumes to approximately 1.4 billion cfd, while the new Basrah Natural Gas Liquids plant will increase processing capacity by around 40%.

Further growth will require the capture of lower-pressure gas from the second and third stages of oil production. BGC initially concentrated on larger volumes of high-pressure gas, which is easier to recover. It plans to capture around 95% of the gas produced by License Round 1 operators by 2028.

The five-year plan combines a 40% increase in production with a projected 14% reduction in absolute operational emissions and a 45% fall in carbon intensity. Capturing additional gas from upstream operators can avoid around 5 million mt of CO_2 equivalent, while operational improvements and planned solar generation could cut a further 1.6 million mt. TotalEnergies' estimated $10-12 billion Gas Growth Integrated Project (GGIP), for the first phase is the largest new program under construction. The consortium that controls it includes TotalEnergies with a 45% share, Basrah Oil Company with 30%, and QatarEnergy with 25%. It combines the redevelopment of the Ratawi oil field, gas capture, a 1 GW solar project, and a seawater treatment system. Its first gas unit is designed to process 50 million cfd, followed by a 300 million cfd midstream facility that will recover gas from Ratawi and two other southern fields. TotalEnergies says the processed gas can supply around 1.5 GW of generation.

The combined structure is intended to align higher oil output with gas capture and supporting infrastructure. It is a more coherent model than the early oil-service contracts, but schedules have moved and full commissioning will now be in 2028. The project will reduce flaring at selected fields, rather than solving the national problem on its own.

Iraq has also awarded flare-gas recovery work at Bin Umar and has advanced plans to process gas from Gharraf and Nassiriya, with an announced capacity of around 400 million cfd. Development of the 5.6 tcf Akkas non-associated gas field in Anbar could provide supply that is not tied to crude production, with Baghdad discussing a role for ConocoPhillips at the project. Such fields would make gas availability less vulnerable to oil export interruptions. However, security, infrastructre, and contractual risks remain.

For example, security remains a major obstacle to developing Akkas, although the nature of the threat has changed. Islamic State (ISIS) militants once posed the main risk, but concern has shifted to non-state Shia armed groups. Some of these groups use threats to secure work for affiliated contractors, while others view a US-operated gas project as a target, particularly in the context of the ongoing US - Iran war.

Akkas also presents commercial and logistical difficulties. Its remote location in western Anbar leaves it poorly connected to Iraq's existing gas infrastructure. As a result, successive development plans have concentrated on supplying power plants within the province. The field is intended to supply the 1.6 GW Anbar CCGT plant, which is under development, but the proposed 250-kilometers long pipeline connecting the two projects has made little visible progress.

The Kurdistan Region has a separate gas system centered on the Khor Mor field.

Selected projects and announced capacities

Project	Partners or Operator	Gas Capacity	Status and Role
Basrah Gas Company	South Gas Co / Shell / Mitsubishi	About 950 million cfd current processing	Operating; captures associated gas from Rumaila, West Qurna-1 and Zubair
GGIP gas midstream project	TotalEnergies / BOC / QatarEnergy	50 million cfd early unit; 300 million cfd main phase	Under development; captures gas from three southern fields
Gharraf and Nassiriya	State and contracted developers	About 400 million cfd announced	Planned processing of associated gas
Khor Mor expansion	Pearl Petroleum	Target of about 825 million cfd total output	Expansion intended to supply Kurdistan and additional federal demand
Akkas	Federal government; potential IOC participation	Phased development	Non-associated gas with potential supply to western Iraq

Kurdistan Can Provide Part of the Solution

The Kurdistan Region has a separate gas system centered on the Khor Mor field operated by Pearl Petroleum, whose shareholders include Dana Gas and Crescent Petroleum. Gas from Khor Mor supplies power plants in the Region and the expansion program took total output from Khor Mor to around 750 million cfd.[8] While the project has faced repeated security incidents and contractual disputes, it remains one of Iraq's largest sources of non-associated gas.

Production is also planned from two additional fields in the Sulaymaniyah province, including Chamchamal and Miran. Pearl Petroleum is developing the former and is targeting first gas in the second half of 2027. Together, Khor Mor and Chamchamal will have a total capacity of 825 million cfd once the expansions are completed.

Miran Energy, a joint venture between US independent HKN and Canada's Onex, expects production from the Miran field to begin around May that same year. These schedules remain ambitious, but the projects could broaden the Kurdistan Region's gas supply beyond Khor Mor and provide additional volumes for power generation.

The Kurdish gas sector is already supporting the federal power system. Crescent Petroleum began supplying around 100 million cfd of raw gas from Khor Mor to federal power plants in Kirkuk in August 2026. Independent power producers in the Kurdistan Region, which purchase gas from Crescent, also supply around 1.4 GW of electricity to the national grid, serving Kirkuk, Nineveh, and Diyala, though the end of the summer demand season and conservation measures introduced by Prime Minister Ali al-Zaidi's government have caused a drop in demand to 1 GW. Further development at Khor Mor, Chamchamal, and Miran could provide additional supply, but pipelines and commercial agreements are required to move gas or electricity consistently across the internal boundary.

The Kurdistan Region has also become federal Iraq's largest external electricity supplier. Electricity ministry data show that average supplies more than doubled to a record 1.05 GW, or 9.3 TWh, in 2024. Privately operated plants in the Region now provide power to northern federal provinces, increasing Baghdad's reliance on gas produced at Khor Mor. That dependence became clear after a November 26, 2025 attack on Khor Mor shut the 750 million cfd field, forcing the Kurdistan Region's power plants offline and removing as much as 1.2 GW from the federal grid. Khor Mor had been producing around 530 million cfd before the attack and returned to full operations on December 3. The growing electricity trade strengthens the case for developing additional Kurdish gas resources to serve both Regional and federal demand.[9]

Energy constitutes a major part of the wider dispute over constitutional authority and finances between the federal government and the Kurdistan Regional Government (KRG). Further integration will require pipelines and durable commercial arrangements based on better cooperation between Baghdad and Erbil. Investors need clarity about who purchases the gas, how they will be paid, and whether pipelines and power exports can operate during political disputes. Without that framework, technically attractive resources will remain underdeveloped.

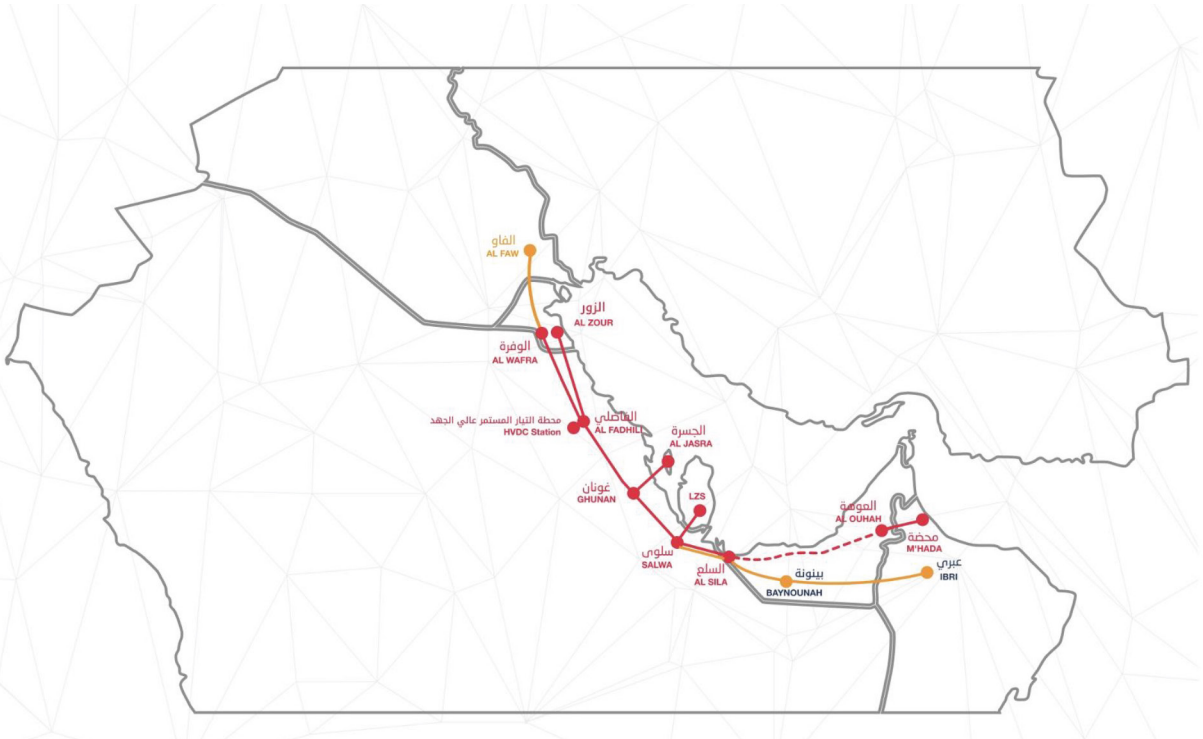
Imports Remain Necessary But Cannot Be the Strategy

In July, Iraqi Electricity Minister Ali Saadi Waheeb told the Council of Representatives that electricity output dropped to 22 GW from 27 GW because of fuel shortages and plant outages. He noted that electricity supplies can meet only a third of demand, which he said stood at 60,000 MW. The minister estimated current total distribution losses at 60% because of what he said were "encroachments on transmission lines".[10]
The ministry aims to raise grid output by 7 GW to 35 GW by 2030, but that would still leave a 25 GW gap even if demand did not grow. The International Renewable Energy Agency (IRENA) lists a more ambitious program of planned generating capacity, although capacity on paper is no guarantee of available power when plants lack fuel and the grid suffers heavy losses.
These figures suggest Iraq could remain dependent on gas and electricity imports even when its current gas projects are completed. Iranian gas and electricity have historically covered a significant share of the power deficit, but those supplies are now constrained by the war, sanctions, and Iran's own needs. The end of the US sanctions waiver in 2025 already generated uncertainty over payments before the latest conflict. Waheeb explained that the issue was discussed during a visit by Iraqi officials to the US in July, where they sought some flexibility to repay part of Baghdad's dues to Tehran. It is not clear yet if Washington acceded to the request.

Other options are limited in the near term. The GCCIA link through Kuwait is designed to deliver 500 MW to southern Iraq initially, but commissioning has been delayed and the volume is small relative to the national deficit.[11] Imports from Jordan and Türkiye, proposed floating generation, and additional electricity from the Kurdistan Region can provide incremental relief. LNG could diversify gas supply, but it requires import infrastructure and dependable shipping routes. It would also expose Iraq to international prices and foreign-currency costs. (See Figure 1)

Figure 1: Proposed GGCIA interconnection with Iraq

IEO



These alternatives should be treated as bridges, not substitutes for reform. An import-dependent power system will continue to expose Iraq to regional risk and external supply interruptions. It will also leave the state paying for gas while domestic volumes are flared.

Renewable energy, particularly solar power, should be part of the solution, but Iraq has lagged behind its regional peers in developing this potential. Iraq's energy transition plans include adding 12 GW of solar energy and 1 GW of wind power and waste-to-energy projects by 2030. These highly ambitious targets are unlikely to be met by the end of the decade. In September 2025, Iraq commissioned the first phase of the 300-MW Karbala solar power plant, the country's first grid-connected solar project to date.[12]

The only other major project currently under development is the 1 GW solar project by TotalEnergies as part of the GGIP. Iraq has also reached an agreement with the UAE company Masdar to develop another 1 GW of solar, though the project has not yet moved forward.[13]

IRENA notes in its Energy Transition Assessment for Iraq that Baghdad will have to address legislative and financial barriers if it is to attract investors.

"Subsidized electricity tariffs further hinder the financial viability of renewable energy projects and discourage energy efficiency measures. Access to financing mechanisms remains limited, despite the Central Bank of Iraq's initiatives for funding small renewable energy projects. Infrastructure constraints, including outdated grid systems, pose additional challenges to integrating variable renewable energy sources," it said.[14]

A Narrower Fiscal Margin

The 2026 conflict has made implementation of planned projects more challenging due to the loss of income from oil sales. Restrictions on tanker traffic and reduced crude exports have forced Iraq to use costly shuttle operations and offer large discounts to move some Basra barrels through the Strait of Hormuz. Lower volumes and weaker realized prices cut the cash transferred to the treasury. The precise fiscal loss will depend on how long the current disruption lasts, but a state financed overwhelmingly by oil cannot absorb such a shock without consequences for spending.

Gas and electricity projects face a double exposure. Lower oil production reduces associated gas supply immediately and reduced oil revenue limits the capital available to expand future capture and delivery. Emergency spending on salaries, fuel, and power imports is likely to take priority over grid modernization and industrial development. Contractors may also face slower payments, increasing the cost of financing and the risk of further delays.

This is where Iraq differs from wealthier Gulf exporters. Saudi Arabia, the UAE, Qatar, and Kuwait have also suffered from regional disruption, but they have larger financial cushions, alternative export infrastructure, and more developed non-oil sectors. Iraq's budget, power system, and wider economy remain tied to the same oil-export chain. A disruption at the Strait of Hormuz therefore passes quickly from the loading terminal to the budget to public services.

What Must Change?

Iraq has more gas projects under construction than at any point in recent years and the combination of BGC expansion, GGIP, new processing plants, and supplies from the Kurdistan Region can materially reduce the deficit. The main question is whether projects are completed on schedule and connected to a network capable of delivering and monetizing the gas.

Policy must move beyond announcing flare-reduction targets. Oil-field contracts need enforceable gas-handling obligations and development plans must match each increase in crude capacity with gathering and processing. A clearer domestic gas price and reliable payment mechanism will give producers and industrial users a basis for investment. Federal systems and those in the Kurdistan Region need commercial agreements that survive political disputes.

The commercial framework remains central to attracting further investment. As the World Bank's Zubin Bamji told Gas Outlook in 2024, Iraq needs "a private investment-enabling competitive, and transparent policy and contractual framework" to attract investment in gas capture.[15]

The power sector requires parallel reform. New gas supplies should be directed to efficient plants, alongside transmission and distribution investment to reduce losses. Metering, billing, and tariff reform are politically difficult, but without them additional generation will continue to leak out of the system financially as well as technically. Protecting grid investment during periods of lower oil revenue will reduce the long-term cost of each fiscal shock.

Finally, captured gas must support more than power generation. Fertilizer, petrochemicals, and other gas-based industries can create export revenue, employment, and domestic demand outside crude oil. The failure of the Nebras project shows that this requires more than resource availability: investors need dependable feedstock, infrastructure, and contractual terms. Replacing imports is the immediate priority, but building an industrial base is the larger economic objective.

Iraq's present crisis is the cumulative result of oil-first development, delayed gas infrastructure, and an inefficient power system. The country has the resource base and several credible projects with which to change course. However, Iraq will remain exposed to the same cycle until capture, transport, power-sector reform, and industrial use advance together.

Endnotes & References

1. Gas Exporting Countries Forum, "Data & Statistics," accessed September 23, 2026, https://www.gecf.org/Publications-Data/Data-Statistics.
2. World Bank, *2026 Global Gas Flaring Tracker Report* (Washington, DC: World Bank, 2026).
3. World Bank, *Global Gas Flaring Tracker Report.*
4. Energy Institute, *Statistical Review of World Energy* 2026, 75th ed. (London: Energy Institute, 2026).
5. Ahmed A. Maaroof, Joseph D. Smith, and Mohammed H. S. Zangana, "The Cost of Inefficiency: A Techno-Economic Assessment of Gas Flaring in Iraq," *Energy Policy* 213 (2026): 115215, https://doi.org/10.1016/j.enpol.2026.115215.
6. Nurluqman Suratman, "Shell Withdraws from Iraq Petrochemical Project amid Global Chemicals Review," ICIS, February 14, 2024, https://www.icis.com/explore/resources/news/2024/02/14/10971578/shell-withdraws-from-iraq-petrochemical-project-amid-global-chemicals-review/.
7. International Monetary Fund, *Iraq: 2025 Article IV Consultation—Press Release; Staff Report; and Informational Annex,* IMF Country Report No. 25/183 (Washington, DC: IMF, 2025), https://www.imf.org/en/publications/cr/issues/2025/07/11/iraq-2025-article-iv-consultation-press-release-staff-report-and-informational-annex-568569.
8. Yesar Al-Maleki, "Pearl Partners Secure Offtake Deals for Second Kurdistan Field," *Middle East Economic Survey*, January 30, 2026, https://www.mees.com/2026/1/30/corporate/pearl-partners-secure-offtake-deals-for-second-kurdistan-field/52568410-fde5-11f0-8743-b747f6410b17.
9. Yesar Al-Maleki, "Kurdistan Emerges as Iraq's Largest Electricity Supplier," *Middle East Economic Survey*, December5, 2025, https://www.mees.com/2025/12/5/power-water/kurdistan-emerges-as-iraqs-largest-electricity-supplier/15ddf9f0-d1e4-11f0-976f-258bf940fbca.
10. Iraqi Council of Representatives, "The Council of Representatives Discusses the Deteriorating Power Crisis with the Minister of Electricity and Votes on Recommendations for the Government to Address the Crisis," July 27, 2026, https://iq.parliament.iq/en/2026/07/27/the-council-of-representatives-discusses-the-deteriorating-power-crisis-with-the-minister-of-electricity-and-votes-on-recommendations-for-the-government-to-address-the-crisis/.
11. GCC Interconnection Authority, "Projects under Construction," accessed September 23, 2026, https://gccia.com.sa/gccia-grid/projects-under-construction-2/.
12. Qassim Abdul-Zahra and Salman Amin, "Iraq's First Industrial-Scale Solar Plant Opens in Karbala Desert to Tackle Electricity Crisis," Associated Press, September 20, 2025, https://apnews.com/article/iraq-karbala-solar-power-80c8e55b2231118e1521304d1eff4of8.
13. Masdar, "Masdar Signs Strategic Agreement to Develop Solar Projects in Republic of Iraq," June 25, 2021, https://masdar.ae/en/news/newsroom/masdar-signs-strategic-agreement-to-develop-solar-projects-in-republic-of-iraq.
14. International Renewable Energy Agency, *Energy Transition Assessment: Iraq* (Abu Dhabi: IRENA, 2025), 30–32, https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2025/Jul/IRENA_COU_Energy_transition_assessment_Iraq_2025.pdf.
15. Miriam Malek, "Iraq Gas Flaring Clean-Up Essential for Climate Goals: Experts," *Gas Outlook*, May 27, 2024, https://gasoutlook.com/analysis/iraq-gas-flaring-clean-up-essential-for-climate-goals-experts/.

Where Does Iraq's Oil and Fiscal Recovery Stand?

By Mohammed Hussein
Resident research fellow at the Dhia Jafar Center for Energy and Natural Resources at AUIS and editor-in-chief of Iraq Energy Outlook.



The Strait of Hormuz crisis in early 2026 delivered a supply shock that exposed the deep vulnerabilities of Iraq's oil-dependent economy. By September, crude export volumes and gross oil revenues rebounded, but Baghdad is still far from turning that physical recovery into fiscal stability. Rigid spending commitments and depleted buffers have left Iraq's federal government in a structural deficit that threatens long-term economic stability.

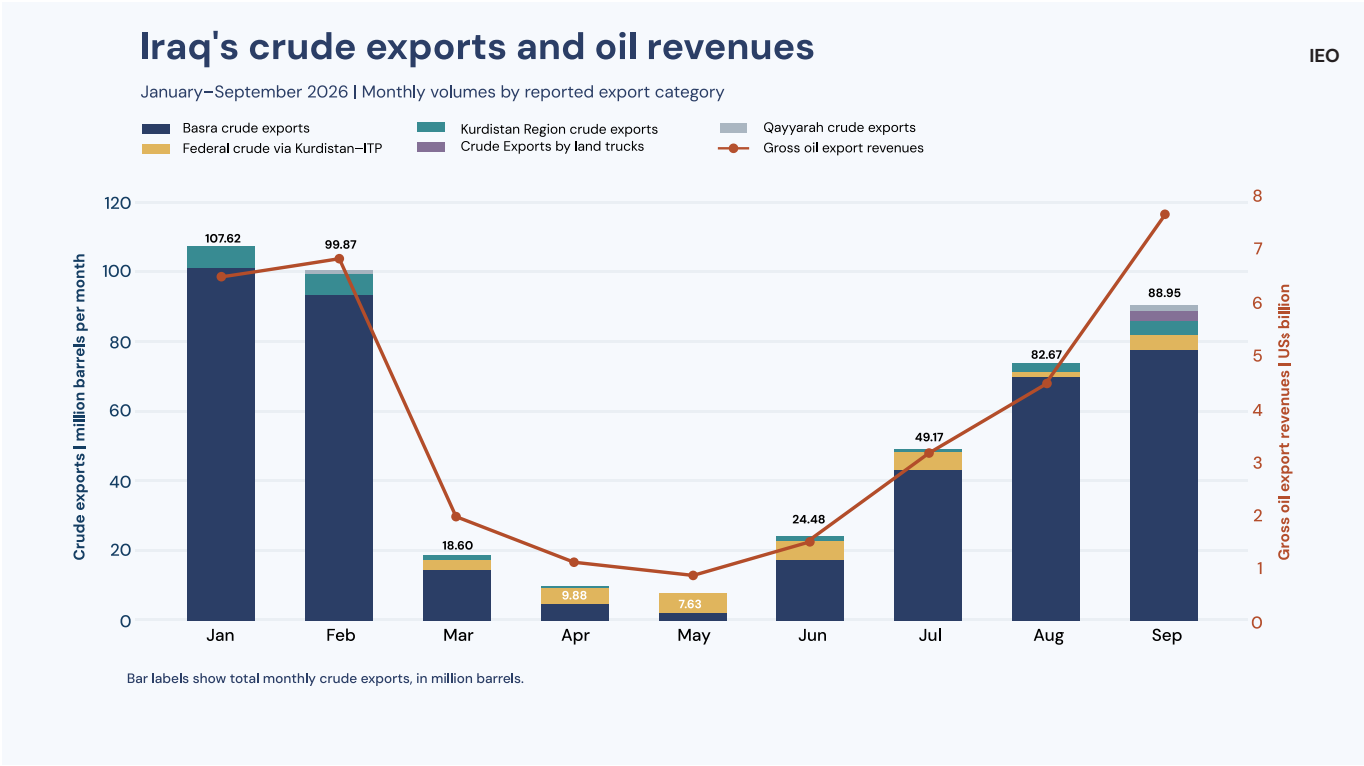


A port worker in Basra, Iraq's main gateway for crude oil exports. Photo credit: General Company for Ports of Iraq.

Oil Export Disruption and the Fiscal Recovery Gap

The federal government has engineered a partial rebound in crude exports since the Hormuz crisis, in which a wider regional conflict cut off Iraq's main export routes.[1] As Figure 1 shows, however, oil revenues still lag well behind the state's spending commitments.

Figure 1: Monthly crude exports and revenues, January–September 2026



Note: *Export volumes and sales revenues reflect crude oil only. They exclude residual refinery products such as heavy fuel oil (HFO), which is consumed domestically or exported via Basra and Syria's Baniyas port.*[2] *Petroleum-products are not systematically captured by SOMO's figures.*[3]

Source: SOMO export statistics. April–September figures were updated using SOMO's statistical report dated October 18, 2026, addressed to the Iraqi Prime Minister's Office.[4] January–March figures are retained from the earlier SOMO data.[5]

Given Iraq's structural economic imbalances and significant dependence on oil, part of the damage stems from the depth of the collapse. At the height of the maritime blockade in May 2026, monthly crude revenues fell to just 0.9 billion USD, from 6.81 billion USD in February.[6]

Exports have since recovered steadily, from 246,000 barrels per day (bpd) in May to 2.96 million bpd in September, lifting monthly revenues back to about $7.7 billion. After cost payments to the international oil companies (IOCs) that produce part of Iraq's crude, net revenue is likely closer to $7 billion.

Prices, not volumes, did most of the work. September exports were still well below the 2025 average of 3.4 million bpd, but elevated oil prices made a 7 billion USD month possible. Increased oil prices are unlikely to hold under normal market conditions.[7]

Even at this price level, oil income does not cover the basics. Based on budget accounts for 2023–2025, Baghdad needs approximately 11.769 trillion IQD (roughly 7.9 billion USD at the current exchange rate of 1500 IQD per USD) each month for operational spending.[8]

Current inflows fall short of that baseline before a single dinar goes to investment.
The crisis also worsened Iraq's terms of sale. To attract buyers amid maritime risk in the Gulf, the State Organization for Marketing of Oil (SOMO) sold crude at discounts of 20 USD to 30 USD per barrel.[9] Baghdad largely absorbed the additional costs, which include war-risk insurance premiums and ship-to-ship transfers.

Alternative export routes offered limited relief in the short term: the northern Iraq–Türkiye Pipeline (ITP) and cross-border trucking remained constrained by technical limitations and the smaller production capacity of the northern oil fields and the Kurdistan Region.[10]

Heavy fuel oil (HFO) from domestic refineries follows a separate operational and pricing track, moving through domestic channels and overland or maritime routes via Syria's port of Baniyas and Basra. This is not included in the SOMO data, but it is too small to change anything in the fiscal landscape.[11]

Fiscal Endurance Amid Policy Dilemmas

To prevent sovereign default and avoid political collapse, policymakers have relied on improvised stopgaps rather than fundamental adjustment. These measures have kept payrolls running, but they have also allowed economic and social risks to build beneath the surface.[12]

First, fiscal pressure is concentrated in the wage bill. Salaries, pensions, and social transfers require around 7.2 trillion IQD (about 5 billion USD) a month. Because the state payroll is Iraq's main social safety net, any delay risks unrest in urban centers. To protect it, the government sharply curtailed investment spending, delayed payments to private contractors, and turned to domestic debt monetization.

Through treasury bill-issuing operations with domestic banks, the Central Bank of Iraq (CBI) supplied liquidity, but contributed to a fall in official reserves from 132.77 trillion IQD in February 2026 to 99.5 trillion IQD (just over 66 billion USD at the current exchange rate) in September.[13] Continued drawdowns put long-term pressure on the exchange rate and monetary stability.

Second, structural reform keeps colliding with entrenched political opposition. In August 2026, the Cabinet moved to align refinery feedstock prices with market rates at a 30% discount, aiming to curb an annual subsidy burden of 17 trillion IQD (about 11.3 billion USD).[14]

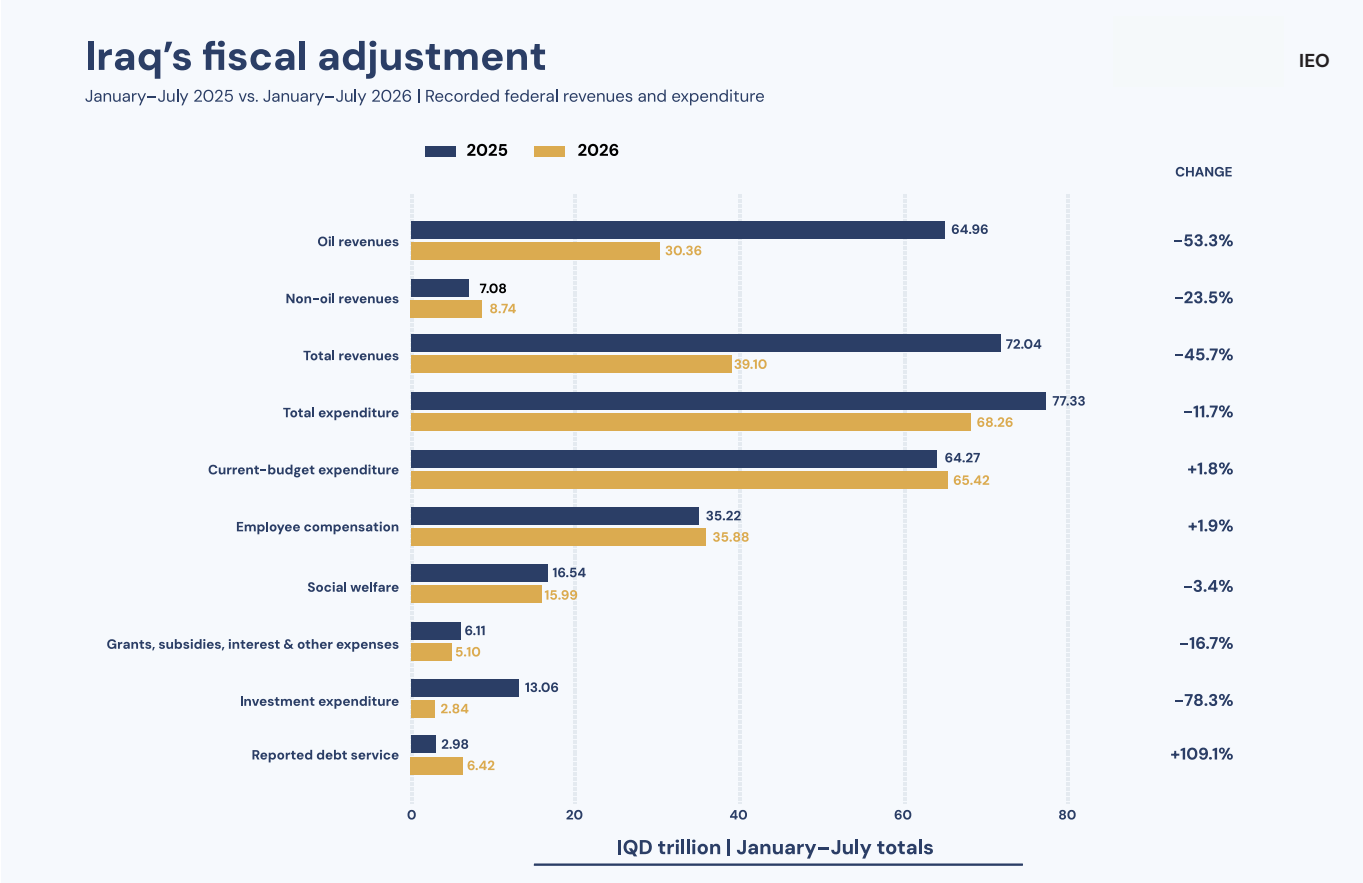
The move triggered immediate strikes at the state-owned refineries (including Shuaiba and Daura) and strong pushback in Parliament.[15] Similar to previous crises, lawmakers pressured the Oil Ministry to roll the initiative back.[16] Separately, domestic HFO prices doubled from 150,000 IQD to 300,000 IQD per ton to reduce explicit energy subsidies, a significant adjustment in the downstream sector.

Third, regional security dynamics add to headwinds. The regional war and its knock-on effects continue to create operational uncertainty and weigh on investor sentiment in key infrastructure sectors.[17] Several IOCs were directly impacted during the acute days of the conflict and some of them still find it challenging to operate.

The Cost of Baghdad's Resilience

Comparing the Ministry of Finance's accounts for the first seven months of 2025 and 2026 shows the scale of the strain. In 2025, oil revenues were steady and shipping through the Strait of Hormuz was uninterrupted. In 2026, revenues fell sharply while spending demands barely moved. Figure 2 compares key fiscal categories for the two periods.

Figure 2: Federal government revenues and expenditures, January–July 2025 vs January–July 2026



Source: Republic of Iraq, Ministry of Finance, Citizen Budget [18]; author's calculations.

Between January and July, oil revenues fell by 53.3%, pulling total government revenues down from 72.0 trillion IQD to 39.1 trillion IQD. Non-oil revenues rose by 23.5% thanks to the newly introduced computerized customs revenue management system, but that additional 1.7 trillion IQD offset less than 5% of the oil revenue loss. Non-oil revenue's relatively larger share of government income reflects falling oil receipts, not a meaningful reduction in Iraq's dependence on oil.

Spending proved far harder to adjust. Total expenditure, including investment, salaries, and pensions, fell by 11.7%, while current spending rose by 1.8%. Employee compensation held broadly stable at 35.9 trillion IQD, equivalent to about 92% of total recorded revenues before social welfare, debt service, or any other expense. This is Iraq's central fiscal constraint: when oil income falls, existing commitments leave little room to maneuver.

The most lasting damage falls on investment, which absorbed most of the adjustment. Investment spending fell by 78.3%, from 13.1 trillion IQD to 2.8 trillion IQD. These cuts ease immediate financing pressure on the government, but if sustained over time it delays projects, weakens demand for contractors and workers, and limits future productive capacity. The pattern is familiar: investment falls whenever oil revenues drop.[19] It is one of the main factors behind the country's depleted infrastructure, low public service capacity, and poor business environment.

Meanwhile, debt service, which is reported separately, has more than doubled in 2026, rising 109.1% from 3.0 trillion IQD to 6.2 trillion IQD. Calculations based on the same accounts show expenditure exceeding revenues by 29.2 trillion IQD in 2026, compared with 5.3 trillion IQD in 2025. This gap is measured before financing and the reports do not show how it was financed.

The concern is that existing obligations are absorbing more fiscal space while investment is squeezed. Recovering oil income offers relief, but lasting improvement depends on using it to reduce financing pressure and restore essential investment.

The 2027 draft budget outlook is precarious. Projected spending stands at 217 trillion IQD.[20] The federal government can expect to collect at most around 15 trillion IQD in non-oil revenue, roughly what it raised in 2025 under an expansionary budget and without the Hormuz constraints. This is dependent on maintaining collection despite significant political and administrative hurdles. That leaves about 202 trillion IQD to come from oil sales and other financing. Iraq's fiscal record over the past 20 years suggests that this is not realistic.

The draft budget assumes an oil price of 58 USD per barrel and exports of 4 million bpd, with an estimated deficit of 43 trillion IQD. However, the deficit is unlikely to remain below 60 trillion IQD. According to the budget estimates, oil sales should bring in roughly 125 trillion IQD, leaving a deficit of about 78 trillion IQD. Under the Oil Ministry's new economic model, domestic crude sales to refineries and sales of oil derivatives should add another 17 trillion IQD, but around 61 trillion IQD will still need to be financed through borrowing.

The author's calculations suggest that closing the deficit gap through volume alone will require crude exports of 5.9 million bpd, far beyond Iraq's current operational and technical capacity.

Alternatively, at 3.5 million bpd, close to the 2025 average and achievable only if the Strait of Hormuz fully reopens and the regional conflict ends, the breakeven price must be 98.20 USD per barrel. Given market conditions, war-risk premiums, and SOMO's discounts, that price is out of reach.[21]

As a result, the federal government faces a baseline deficit of no less than 60 trillion IQD, even after the October devaluation, historically Baghdad's main fiscal adjustment tool. Continued reserve losses are narrowing the CBI's room to manage foreign-exchange demand and maintain confidence in the dinar.

At the end of July 2026, official reserves were valued at approximately 104.8 trillion IQD, compared with 109.0 trillion IQD in currency issued, which is equivalent to reserve coverage of about 96%. Official reserves subsequently declined to 99.6 trillion IQD by September 24. Sustained reserve depletion and large financing needs will increase pressure on monetary and exchange-rate stability.[22]

After months of reliance on borrowing, the CBI adjusted the official exchange rate on October 7, 2026, setting it at 1,500 IQD per US dollar for sales to the Ministry of Finance, 1,510 IQD for commercial banks, and 1,520 IQD for cash sales to the public.[23] The adjustment increases the dinar value of official dollar receipts by 15.4% and reduces the budget deficit by roughly 19 trillion IQD.

Part of that gain is offset by higher external and import costs. Foreign debt service, dollar-denominated procurement contracts, and essential imports such as medicines and refined fuels all become more expensive in dinar terms. Because the deficit stems from rigid spending rather than currency misalignment, devaluation offers only limited, temporary liquidity relief.

Households and the private sector bear much of the cost through lost purchasing power. Iraq imports a large share of its consumer goods and agricultural inputs, so inflation threatens real incomes, especially for fixed-wage earners and lower-income households that depend on state transfers and informal economic activities.

In theory, costlier imports make domestic producers more competitive. In practice, unreliable electricity, limited access to credit, red-tape impediments, and logistics bottlenecks continue to suppress any non-oil supply response. These constraints make it unlikely that dinar devaluation alone will deliver a substantial improvement in the competitiveness of Iraqi products.

Implications for the Energy Sector and Investment Climate

Fiscal volatility is likely to weigh on Iraq's energy ambitions and investment climate. Major capital-intensive projects, such as the Basra–Haditha pipeline and other strategic midstream infrastructure intended to attract foreign direct investment and IOC participation, depend on macroeconomic stability and credible sovereign guarantees. Both are difficult to sustain under such fiscal pressure.[24]

Iraq's structural economic imbalances remain a source of instability. With hydrocarbon exports still accounting for roughly 98% of foreign currency earnings and 90% of federal revenues, disruptions to oil exports quickly translate into pressure on the budget and the wider economy. This dependence also puts the country's ambitious energy investment plans at risk, as fiscal constraints limit the government's capacity to finance projects and meet its commitments.

The electricity sector is particularly exposed because oil production supports both the public revenues needed to fund investment and the associated gas used to fuel power plants. During the Hormuz crisis, cuts to upstream output reduced associated gas supplies, worsening summer electricity shortages. Projects such as TotalEnergies' Gas Growth Integrated Project (GGIP) and other gas-capture initiatives could help ease these constraints, but progress remains vulnerable to administrative delays and fiscal uncertainty.[25]

The irony is that the projects best placed to help Iraq bypass Hormuz-style bottlenecks, such as new pipelines and upstream developments, are also the first casualties of today's fiscal, political, and security pressures.
The same pressures will test national stability. Periods of fiscal strain have typically revived oil and budget disputes between Erbil and Baghdad. This is a classic conflict over resources: as the oil cake shrinks, the risk of conflict grows.

Conclusion

Iraq's oil revenues have largely come back, but its fiscal stability has not. September's revenues match pre-war levels, but still fall short of the state's monthly running costs. Even in times of relative stability, like in 2025, the federal government still ran a deficit.

Devaluation and reserve drawdowns have bought time, not solvency. Investment and development projects have carried the adjustment. Unless Baghdad pairs recovering oil income with real control over the wage bill and subsidies, the next shock will find even thinner buffers.

Endnotes & References

1. Hussein, Mohammed. "Buying Time: How Baghdad Managed Iraq's Oil-Fiscal Crisis." *Iraq Energy Outlook* 2 (August 2026): 12–28. https://energy.auis.edu.krd/articles/buying-time-how-baghdad-managed-iraqs-oil-fiscal-crisis.
2. Shwan Jamal Azeez, Babo Bahman Jamal, and Mustafa Ahmed Yousif Bashnah, *Diversifying Iraq's Oil Export Corridors:* Strategic Lessons from the 2026 Strait of Hormuz Crisis, Iraq Energy Outlook 2, August 2026 (18-27), https://energy.auis.edu.krd/articles/diversifying-iraqs-oil-export-corridors-strategic-lessons-from-the-strait-of-hormuz-crisis.
3. "Iraqi Oil Revenues Rebound to Pre-war Levels," Iraq Oil Report, October 6, 2026, https://www.iraqoilreport.com/news/iraqi-oil-revenues-rebound-to-pre-war-levels-48000/.
4. Oil Marketing Company (SOMO). "Crude Oil Exports, Revenues, and Export Prices for 2026." Tables 1–3. October 18, 2026. Ministry of Oil, Republic of Iraq. PDF report.
5. State Organization for Marketing of Oil (SOMO). "Crude Oil Exports." Accessed October 7, 2026. https://www.somooil.gov.iq/ar/exports/chart.
6. Azeez, Jamal, and Bashnah, *Oil Export Corridors* (18-27).
7. "Oil Revenues Rebound," Iraq Oil Report.
8. Ministry of Finance, Republic of Iraq, "Budget Implementation Archive," accessed October 3, 2026, https://www.mof.gov.iq/Budget-implementation-Archive.
9. "ADNOC Trading Buys Millions of Barrels of Iraqi Crude, Sources Say," Reuters, September 15, 2026, https://www.reuters.com/business/energy/uaes-adnoc-buys-millions-barrels-iraqi-crude-sources-say-2026-09-15/.
10. "Oil Revenues Rebound," Iraq Oil Report.
11. "US Imports First Fuel Oil Cargoes Shipped via Syria as Iraq Leverages New Export Route," Reuters, July 23, 2026, https://www.reuters.com/business/energy/us-imports-first-fuel-oil-cargoes-shipped-via-syria-iraq-leverages-new-export-2026-07-23/.
12. Hussein, "Buying Time," (12-28).
13. Central Bank of Iraq, "Key Financial Indicators for October 7, 2026," Excel spreadsheet, accessed October 10, 2026, https://cbi.iq/static/uploads/up/file-179145370550608.xlsx.
14. "North Gas Responds to Concerns over Iraq Oil Reforms," Shafaq News, August 24, 2026, https://api.shafaq.com/en/Economy/North-Gas-responds-to-concerns-over-Iraq-oil-reforms.
15. "Refinery Sector Revolts over Oil Pricing Reform," Iraq Oil Report, August 26, 2026, https://www.iraqoilreport.com/news/refinery-sector-revolts-over-oil-pricing-reform-47934/.

16. SOMO, “Crude Oil Exports.”
17. Hussein, “Buying Time,” (12-28).
18. Ministry of Finance, “Budget Implementation Archive.”
19. Hussein, Mohammed. “Iraq’s Investment Deficit and Underfunded Infrastructure.” (Iraqi Economists Network, 2020), https://iraqieconomists.net/en/wp-content/uploads/sites/3/2020/10/Iraq-s-Investment-Deficit-and-Underfunded-Infrastructure.-By-Mohammed-Hussein-final.pdf.
20. “Iraq Proposes Oil Price Assumption of $58 per Barrel in Draft Budget,” Reuters, October 6, 2026, https://www.reuters.com/business/energy/iraq-proposes-oil-price-assumption-58-per-barrel-draft-budget-2026-10-06/.
21. “ADNOC Trading Buys Millions,” Reuters.
22. Central Bank of Iraq, “Key Financial Indicators.”
23. Central Bank of Iraq,خطوة إستراتيجية لتعزيز الاستقرار المالي (A strategic step to strengthen financial stability), October 7, 2026, https://cbi.iq/news/view/3355.
24. Azeez, Jamal, and Bashnah, *Oil Export Corridors* (18-27).
25. Istepanian, Harry. “Iraq’s Electricity Sector Caught in a Perfect Storm.” *Iraq Energy Outlook* 2 (August 2026): 29–38, https://energy.auis.edu.krd/articles/iraqs-electricity-sector-caught-in-a-perfect-storm.

Towards an Integrated Energy System Model for Iraq

By Ahmed Gailani
An energy systems and climate change policy expert and developer of Masarat Institute



Iraq's costliest energy failures often occur at the interplay between sectors: a power station built without fuel, associated gas flared instead of captured, or a refinery decision that eases one fuel shortage but worsens another. A national energy system model can test these connections before public money is committed.

The Consequences of Fragmented Energy Planning

In 2008, Iraq ordered gas turbines capable of adding as much as 7,000 megawatts (MW) to a nationwide power system that was under severe pressure.[1] Operating them required reliable fuel from a domestic chain of associated gas gathering, processing, and pipelines, but development of that chain lagged behind. In short, Iraq expanded gas-fired capacity before it could supply those plants with enough suitable gas to power them.

The gap soon appeared in operation. The Integrated National Energy Strategy later reported that the new gas turbines largely operated using substitute fuels, with more than half coming from gas oil, crude oil, and heavy fuel oil.[2] An adequate supply of suitable gas would have reduced this dependence and allowed the turbines to run more efficiently. Ministry of Electricity data for 2024 show that gas-fired plants made up the largest share of operating capacity, yet the electricity system produced on average only about half of its design capacity. Generators continued to burn crude oil, heavy fuel oil, and mixed fuels.[3] Sustained reliance on these substitute liquid fuels can raise maintenance needs and emissions, reduce efficiency, and shorten equipment life. However, the extent of these effects varies with turbine design, fuel quality, treatment, and emissions controls.[4,5]



Storage tanks and connecting pipelines at Karbala Refinery, with a flare stack burning gas in the background. Photo credit: Karbala Refinery.

Imported natural gas from Iran filled part of the domestic supply gap and gradually became essential to electricity generation. That dependence exposed Iraq's power supply to interruptions beyond its control. When Iranian gas stopped in December 2025, the grid lost 4,500 MW of generation, equivalent to about 24% of the average grid output of 18,900 MW reported for 2024.[6,7]

As Iraq's population and electricity demand grow, each interruption widens the shortage and leaves capacity unable to operate, even though it has already been purchased. This recurring vulnerability shows what happens when generation expands faster than the fuel system needed to support it.

The same planning problem extends across the energy sector. Iraq advances oil fields, gas-capture facilities, refineries, transmission lines, power stations, and regional interconnections through programs that are often prepared separately, when they in fact depend on one another.[8]

Higher oil production brings more associated gas that must be captured, processed, and delivered to a customer. Refinery decisions change the supply of diesel and fuel oil used in transport, industry, and electricity generation. A new power station needs both a secure fuel supply and enough network capacity to deliver its output.

A national energy system model can test whether these plans work together and how the complete program can be delivered at least-cost. It would show which investments are needed together, which infrastructure must come first, and how delays affect the rest of the system. These links also cross administrative boundaries, so the proposed national model would cover both the governorates administered by the federal government and the Kurdistan Regional Government (KRG). A two-area structure that retains governorate detail would connect their energy balances, while preserving their different institutions and operating arrangements.

Oil fields, gas-processing plants, refineries, pipelines, power stations, and networks are all parts of an energy chain system.

What a National Energy System Model Does?

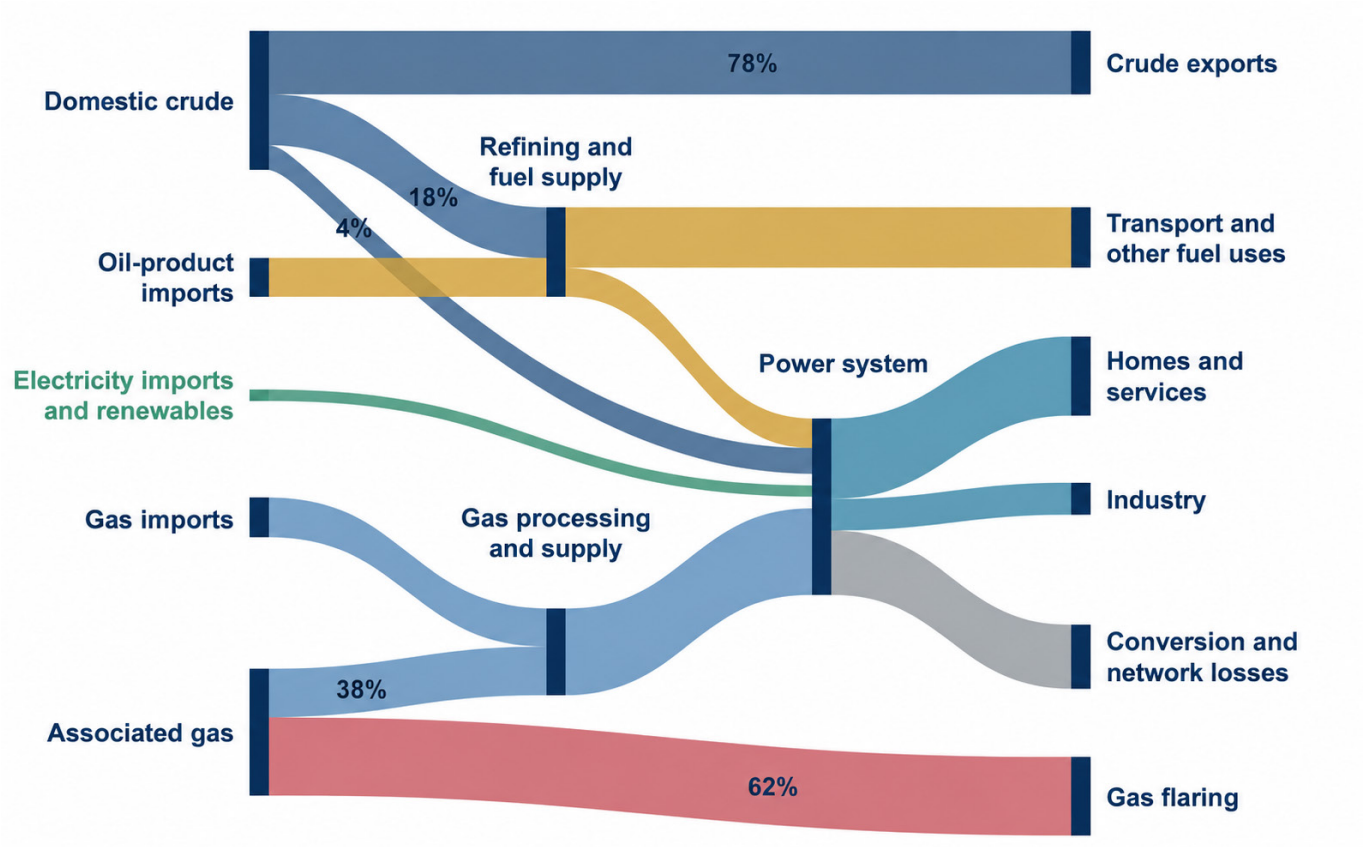
Iraq's energy system is the chain that turns natural resources and imports into the services on which daily life and the economy depend: electricity in homes, fuel for transport, heat for industry, and energy for water and public services. Oil fields, gas-processing plants, refineries, pipelines, power stations, and networks are all parts of that chain.

The Iraq Energy System Model converts this physical chain into a bottom-up, technology-rich optimization model.[9] It belongs to the same broad family as TIMES, an open-source framework developed through the International Energy Agency's (IEA) Energy Technology Systems Analysis Programme: demands for energy services must be met, resources and technologies are represented by their costs and physical limits, and the model identifies the least-cost combination of operation and investment across the whole system.[10] It does not predict a single future; it compares internally consistent scenarios under stated assumptions.

Figure 1 traces the model's simplified 2024 baseline. Of the energy in domestic crude production, 78% goes to exports, 18% to refining, and 4% directly to power generation. Associated gas divides between capture and flaring, at 38% and 62% respectively. Refining and imported oil products provide transport, other fuel uses, and power to consumers and industry. Imported gas, electricity imports, and renewables supplement domestic supply. The final branches show electricity reaching homes, services, and industry, alongside energy lost during conversion and delivery.

Figure 1: Iraq's main energy pathways

IEO



Source: Prepared by the author using the 2024 baseline of the Iraq Energy System Model. Percentages represent rounded energy shares. Flow widths are schematic, crude exports are compressed, and minor flows are omitted. Renewables include solar PV and hydropower.[11]

Within the model, energy moves from domestic resources and imports through conversion plants and networks to final demand. Each resource, process, and technology is defined by its capacity, efficiency, availability, construction time, lifetime, costs, and emissions.[12] Balance equations require every unit of crude oil, gas, refined product, and electricity to be accounted for in each model period. This is what makes the model systemic: changing gas capture, refinery output, or power-generation capacity changes the feasible choices elsewhere.

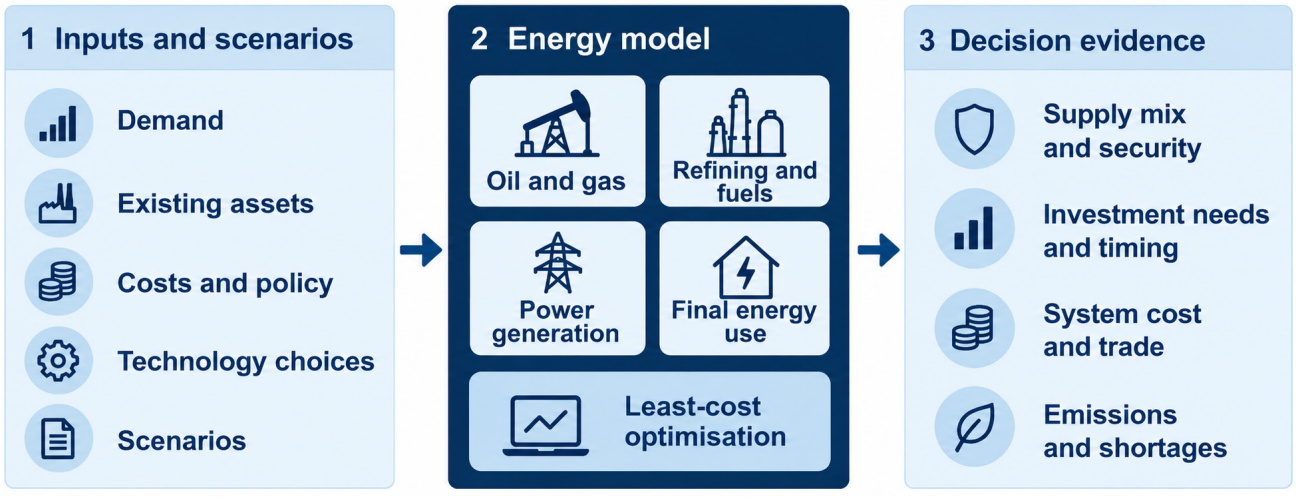
For each scenario, mathematical optimization decides how existing assets operate, which new assets are built and when, and how fuels and electricity move through the system while demand is met at the lowest total system cost. A scenario can test faster demand growth, delayed gas projects, different refinery configurations, import disruption, demand pathways associated with subsidy reform, or emissions constraints. The result is not a forecast; it is the least-cost response to that scenario's assumptions and constraints.

Figure 2 summarizes the model architecture. Demand, existing assets, resource availability, costs, policies, and technology options enter as data and scenario assumptions. The optimization links oil and gas, refining and fuels, power generation, and final energy use. It then determines the least-cost system pathway within the stated physical and policy constraints. Its outputs include operation, investment and timing, fuel and electricity balances, trade, total system cost, emissions, and any unmet demand. These results expose cross-sector consequences: a cheap power-sector option may require costly fuel imports, while a refinery may reduce imports of one product but produce more of another than Iraq needs.

The optimization links oil and gas, refining and fuels, power generation, and final energy use.

Figure 2: Data and scenario assumptions enter one connected whole-energy-system optimization model

IEO



Source: Author's illustration. These inputs produce results for operation, investment, cost, trade, emissions, and unmet demand.

How the Model Turns Data into Decisions?

The sequence in Figure 2 begins with a historical baseline: a single account of demand, domestic resources, imports, conversion plants, networks, losses, and emissions in a recent year. Analysts reconcile the datasets so each major energy flow has a documented origin, destination, and unit. Federal and KRG records require particular care, since an exchange may appear in both sets of accounts. The baseline should reproduce the observed system, with any remaining differences explained, before it is used to assess future pathways.

Each existing or possible asset is described by its capacity, efficiency, fuel, cost, availability, construction time, lifetime, and emissions. The model also records the limits on connections between assets. A plant's generation depends on the fuel that can reach it. Associated gas becomes useful supply only when the facilities to capture, process, and deliver it are available, for example. Independent power producers, private refineries, and public-private partnership projects belong in this account alongside state assets. The model records their physical and cost characteristics, while supplementary commercial analysis identifies the owner, operator, and buyer, as well as fuel obligations, payment terms, and contract duration. Together, this information shows how each project could operate within a scenario and whether the required contractual arrangements are credible.[13]

Using those records, mathematical optimization searches for the lowest total system cost over the modelled period, in order to meet demand within the physical and contractual limits of each scenario. The calculation considers operation and investment together, including the cost of fuel supplies, networks, and other assets needed to make each project usable.

Institutions responsible for the data should review the records and key assumptions. Results should also be checked against the historical baseline and engineering judgement. Sensitivity cases test how the answers change with demand, prices, delivery dates, or import availability, showing where decisions depend heavily on uncertain inputs.

Regional experience provides useful comparisons. Saudi Arabia's KAPSARC Energy Model links power, upstream oil and gas, refining, petrochemicals, cement, and water desalination.[14] Meanwhile, Jordan is building national modelling capability in TIMES[15], Kuwait has developed a TIMES model to explore energy and industrial pathways[16], and Türkiye's ISTEM represents primary supply, final demand, and regional trade.[17] The Iraq Energy System Model belongs to this same broad family of bottom-up optimization models, but is built around Iraq's particular resources, institutions, delivery constraints, and policy questions.

A National Boundary With Two Area Systems

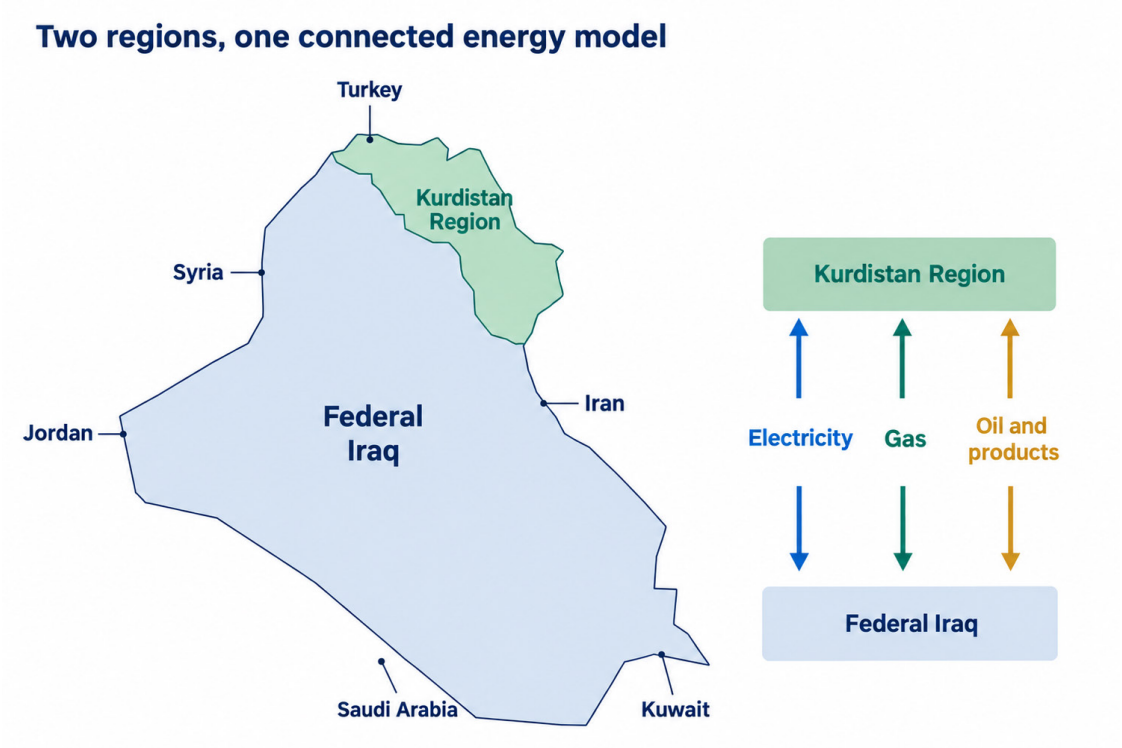
Federal Iraq and the KRG would each have a separate energy balance covering demand, resources, public and private assets, tariffs, and contractual constraints, with governorate detail where it matters. The model connects these balances. Each area's institutions and operating arrangements determine how its assets and exchanges operate.

Exchanges between the two areas would have a capacity, permitted direction, loss, delivery cost, and availability assumption. The model would represent the physical flows and associated system costs, while supplementary financial analysis could assess purchase prices, payment obligations, and consequences for each participant.

For example, a scenario could compare additional gas deliveries from the Kurdistan Region to federal power plants with an alternative of generating electricity closer to the gas source and transferring the electricity instead. It would show the infrastructure, investment timing, fuel use, losses, and exposure to interruptions for each option, with system costs, reliability, and emissions reported for each area and for Iraq overall. The same framework could examine existing or prospective energy exchanges with Türkiye, Iran, Kuwait, Saudi Arabia, Jordan, and Syria. Comparing coordinated investment with separate area plans would show where the two areas could benefit and what changes to infrastructure, contracts, or operating responsibilities would be needed.

Figure 3 illustrates this boundary. The map indicates the proposed coverage, while the exchange diagram shows how electricity, gas, oil, and products connect the two area balances. The model would calculate the scale and direction of these exchanges for the infrastructure and contracts specified in each scenario.

Figure 3: Data and scenario assumptions enter one connected whole-energy-system optimization model



Source: Author's illustration. Area boundaries and connections are schematic.

The Questions a National Model Can Test

A national model is most useful when it is built around a limited set of decisions that matter across government: how Iraq can meet future needs, what each major policy choice requires elsewhere in the system, and how cost, security, trade, and emissions change together?

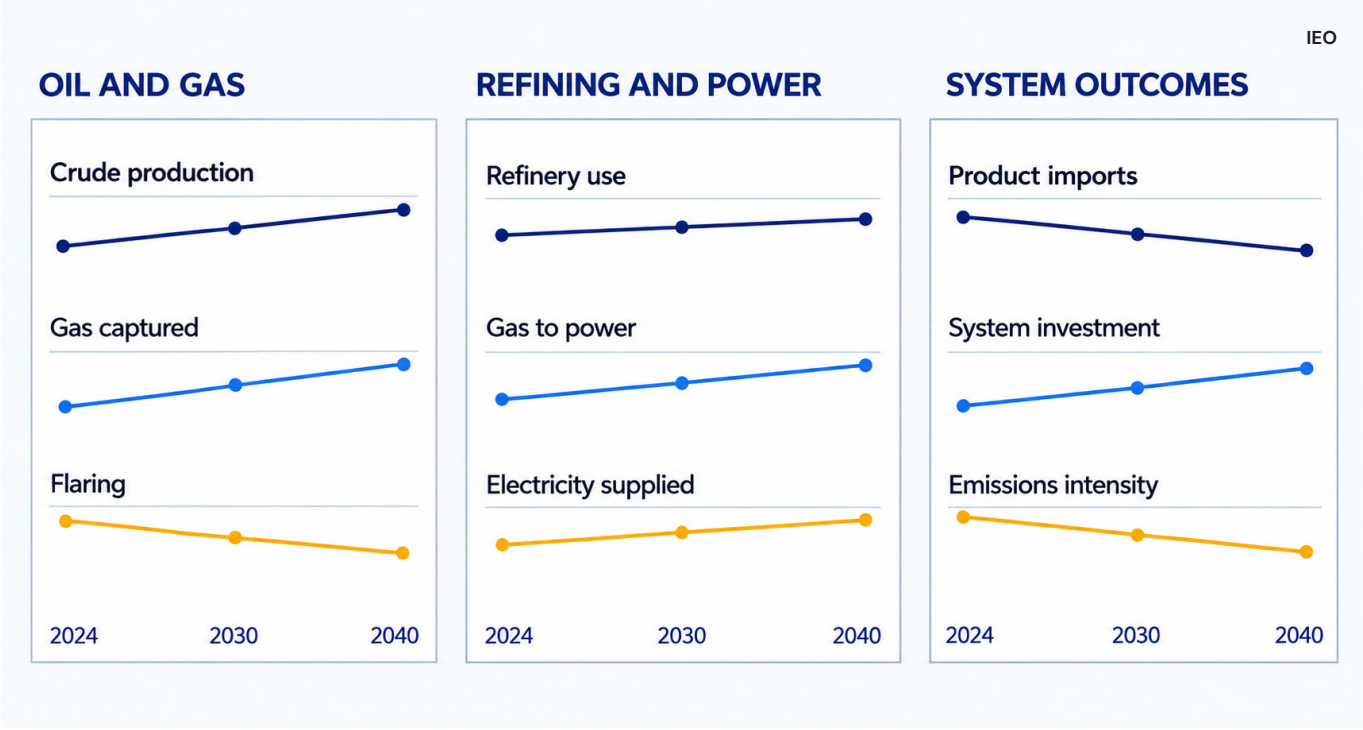
What is the least-cost way to meet Iraq's future energy needs?

The national model can identify the combination of domestic resources, imports, processing, infrastructure, and technologies that supplies electricity, refined products and other energy needs while respecting fuel availability, existing capacity, construction time, and policy constraints. Least-cost here means the cost of the complete system over time.

What results if Iraq raises oil production by 2030 and 2040?

Higher crude output requires upstream and export infrastructure and produces more associated gas. The model can trace how much gas must be captured, processed, delivered, reinjected, or flared, whether refineries use more crude, and how exports change. The gains depend on which investments are ready first. Additional gas improves electricity supply only if gathering, processing, and power capacity are ready; extra refinery throughput reduces product imports only if it matches demand. Figure 4 illustrates these links for the model to test.

Figure 4: A higher oil-production pathway can affect gas capture, refining, power, trade, investment, and emissions.



Source: Author's illustration, showing illustrative directional trends rather than specific model results or forecasts.

How can Iraq strengthen energy security at an acceptable cost?

Domestic gas, imported gas, electricity trade, and alternative supply options differ in cost, delivery time, and exposure to interruptions. The model can test how the system performs when an import route is interrupted or a domestic project is delayed. The results would trace the effects on generation, fuel use, product trade, investment and shortages, and identify which measures taken in advance would reduce the damage most effectively.

What are the costs and benefits of meeting Paris Agreement commitments while demand grows?

The model could compare an emissions-focused scenario with a least-cost reference pathway, both meeting the same energy needs.[18] The comparison would show what changes are needed in flaring, fuels, infrastructure, and technology and quantify the additional investment and system cost. It would also measure changes in emissions, fuel waste, import exposure, and efficiency, helping Iraq to assess climate measures alongside its development and energy-security priorities.

Which pathway remains credible when plans slip or assumptions change?

Demand growth, construction schedules, fuel prices, technology costs, and import availability are uncertain. Testing different assumptions shows which decisions remain useful across several future scenarios and which depend on one optimistic assumption. This helps the government distinguish investments that are urgent and durable from those that can wait for better information.

How can subsidy reform reduce waste while protecting essential energy use?

The model could compare subsidy-reform scenarios based on different assumptions about government-set prices, metering, payment collection, and protection of essential household energy use. The scenarios would translate these assumptions into alternative demand and loss pathways. Supporting financial and sector data would separate the cost of supplying energy, customer payments, and the government subsidy bill, while distinguishing technical losses, unmetered consumption, unpaid bills, and fuel diversion. This is necessary because each requires a different remedy .[19] The model could then estimate how each reform pathway changes fuel use, infrastructure requirements, system costs, and shortages.

For electricity, the model could compare alternative demand scenarios based on assumed responses to improved metering, more efficient appliances, and tariff reform. Each scenario would specify a different electricity-demand pathway, allowing the model to estimate the resulting changes in fuel use, infrastructure requirements, system costs, and shortages. These assumptions could be revised as better evidence becomes available, helping the government to assess the potential effects of reform.

Together with the other scenarios, these comparisons would give decision-makers a common account of energy supplied, infrastructure required, fuel used, imports and exports, system costs, shortages, and emissions. This evidence could then inform project appraisal and the national investment program.

From Evidence to an Investable National Plan

Before procurement, each proposal should identify the need it will meet, the fuel, network, or supporting assets it requires, and when those will be ready. The model should also compare other ways to provide the same service and test what happens if delivery slips. Those findings should inform appraisal, budgeting, and contracting.

Federal and KRG energy institutions should each validate their own production, demand, assets, and operating assumptions, while a joint technical process reconciles exchanges and common scenarios. Planning and finance institutions would use those results to prepare investment programs and budgets.

The plan for each interconnection should name its asset owner, operator, dispatch authority, and fuel supplier and identify those responsible for payment, maintenance, and renewal. Supplementary analysis should assess payment delays and contract expiry, while model scenarios test the resulting effects on availability, interruptions, and delivery costs. Together, these analyses would show how exchanges can remain reliable over time.
State companies, private operators, regulators, universities, and sector specialists can challenge costs and delivery schedules. The effects of a changed assumption should be calculated for the whole system and reported for each area, as well as for Iraq overall.

Political and fiscal pressures also affect which investments go ahead. Iraq's dependence on oil revenue makes capital spending vulnerable when prices fall, while recurrent commitments leave limited room to adjust.[20,21] Annual budgets and political timetables favor projects for which one institution can announce and take credit. Gas gathering, pipelines, rehabilitation, maintenance, and data systems often attract less attention, even when several major projects depend on them. The model can quantify the electricity lost, imports required, and additional system cost when this supporting work is delayed, making those consequences clearer when budgets are prepared.

The same evidence can support private investment. Investors and lenders need to know that an asset has credible demand, that its fuel and network connections will be available, and that it remains useful if prices or delivery dates change. The model can assess whether an asset meets a system need and identify what else must be ready. A bankable project also requires regulation, transparent procurement, reliable payment arrangements, consumer protection, and a sensible allocation of construction, fuel, demand, and political risks through policy and contracts.[22,23]

Making The Whole System Modelling Routine

Projects, prices, and demand will change, so the model needs regular updates. Federal and KRG institutions will need to agree who leads the work and name those responsible for the data. The historical baseline should be documented, with changes to costs, delivery dates, and fuel availability recorded through version control. Ministries and operators can use common scenarios within their existing responsibilities. Assumptions and the reasons for differences between cases should be open to review, so each institution can trace the evidence behind the results.

Federal and KRG institutions will need to agree who leads the work and name those responsible for the data.

Before a project enters the national investment program, the model should test the need for the new proposal and its dependencies. Procurement should include scenarios for delays and price changes. A major change in oil production, gas delivery, demand, or regional trade should trigger a new comparison of the investment sequence. Results should show energy supplied, fuel used, imports and exports, shortages, cost, and emissions in terms decision-makers can use, with the technical detail available for scrutiny.

Iraq committed to generation before the fuel chain was ready. It then faced the challenges of relying on substitute fuels, underused capacity, and dependence on imported gas. Modelling those links before procurement could have exposed the missing investments and the cost of delay. Political leaders could then make those choices with their physical and economic consequences laid out before resources are committed. Therefore, using a national energy system model routinely would help Iraq decide which investments belong together, what must come first, and how to respond when plans change.

Political leaders could then make those choices with their physical and economic consequences laid out before resources are committed.

Endnotes & References

١. "International Briefing: GE Sells Turbines to Iraq,"Washington Post, December 17, 2008, https://www.washingtonpost.com/archive/business/2008/12/17/international-briefing/0421ae14-8e8e-476e-a99e-bd6e5c6c1d2f/.

2. Government of Iraq and World Bank, Integrated National Energy Strategy: Summary of Final Report (Washington, DC: World Bank, 2013), https://documents.worldbank.org/en/publication/documents-reports/documentdetail/406941467995791680/iraq-integrated-national-energy-strategy.

3. Ahmed Gailani, "Iraq Electricity System: Fundamentals, Failures, and Reform," (Substack newsletter), May 17, 2026, https://ahmedgailani.substack.com/p/iraq-electricity-system-fundamentals.

4. US Environmental Protection Agency, Catalog of CHP Technologies, "Section 3: Technology Characterization—Combustion Turbines,"https://www.epa.gov/sites/default/files/2015-07/documents/catalog_of_chp_technologies_section_3._technology_characterization_-_combustion_turbines.pdf.

5. World Bank, Iraq Electricity Services Reconstruction and Enhancement Project, Project Appraisal Document, Report No. PAD2601 (Washington, DC: World Bank, April 19, 2019), annex 1, 40,https://documents1.worldbank.org/curated/en/504001557108087756/pdf/Iraq-Electricity-Services-Reconstruction-and-Enhancement-Project.pdf.

6. "Iraq's Halted Gas Supplies from Iran Seen Resuming within a Week," Reuters, December 24, 2025, https://www.reuters.com/business/energy/iraqs-halted-gas-supplies-iran-seen-resuming-within-week-2025-12-24/.

7. Ministry of Electricity, Iraq, "Electricity Statistical Tables for 2024, P2: Generation Plants and Design Capacity" (unpublished data supplied to the author).

8. International Energy Agency, Iraq's Energy Sector: A Roadmap to a Brighter Future (Paris: IEA, 2019), https://www.iea.org/reports/iraqs-energy-sector-a-roadmap-to-a-brighter-future.

9. Masarat Institute, Iraq Energy System Model (2026), https://masarat.uk.

10. IEA Energy Technology Systems Analysis Programme, "The TIMES Model and Policy Applications," https://iea-etsap.org/index.php/etsap-tools/model-generators/times.

11. International Renewable Energy Agency, Energy Transition Assessment: Iraq (Abu Dhabi: IRENA, 2025), https://www.irena.org/Publications/2025/Jul/Energy-Transition-Assessment-Iraq.

12. Ahmed Gailani, "Energy System Modelling," (Substack newsletter), June 7, 2026, https://ahmedgailani.substack.com/p/energy-system-modelling.

13. World Bank PPP Resource Center, "Legal Guide to Investing in Power Generation in Iraq," https://ppp.worldbank.org/library/legal-guide-investing-power-generation-iraq.

14. King Abdullah Petroleum Studies and Research Center, "KAPSARC Energy Model for Saudi Arabia," https://www.kapsarc.org/our-offerings/kapsarc-solutions/kapsarc-energy-model-for-saudi-arabia.

15. Jordan Ministry of Energy and Mineral Resources, "Ministry Launches Specialized Training Workshop on Energy Modelling Using TIMES," August 2, 2026, https://memr.gov.jo/EN/NewsDetails/2026080202.

16. Energy Modelling Lab and UNEP, "TIMES-Kuwait: Reaching Net-Zero Emissions in Kuwait," https://energymodellinglab.com/net-zero-emissions-in-kuwait/.

17.Istanbul International Center for Energy and Climate (IICEC), Sabancı University, "IICEC-Sabancı University TIMES Energy Model (ISTEM)," https://iicec.sabanciuniv.edu/sites/iicec.sabanciuniv.edu/files/2020-11/1617349261_ISTEM.pdf.

18. Republic of Iraq, Nationally Determined Contribution 3.0 (2025), https://unfccc.int/sites/default/files/2026-01/NDC%20Report%20EN%20-%202025.pdf.
19. International Monetary Fund, Iraq: 2025 Article IV Consultation, IMF Country Report No. 25/183 (Washington, DC: IMF, 2025), https://www.imf.org/en/publications/cr/issues/2025/07/11/iraq-2025-article-iv-consultation-press-release-staff-report-and-informational-annex-568569.
20. International Monetary Fund, Iraq: 2025 Article IV Consultation, 25/183.
21. World Bank, Iraq Systematic Country Diagnostic, Report No. 112333-IQ (Washington, DC: World Bank, 2017), https://documents.worldbank.org/en/publication/documents-reports/documentdetail/542811487277729890/iraq-systematic-country-diagnostic.
22. IEA ETSAP, "TIMES Model."
23. International Energy Agency, "Iraq Ministerial Roundtable Shows Support for Economic Reforms and Investments," July 2020, https://www.iea.org/news/ieas-iraq-ministerial-roundtable-shows-support-for-economic-reforms-and-investments.

ENERGY IN NUMBERS

The Cost of Iraq's Gas Flaring

BY IEO EDITORIAL TEAM

Iraq is the world's fifth-largest oil producer but the third-largest gas-flaring nation, trailing only Russia and Iran. According to the World Bank's latest satellite-based estimates, Iraq flared approximately 24.12 billion cubic meters (bcm) of gas in 2025—equivalent to roughly 66 million cubic meters per day or 2.3 billion cubic feet per day.*

Consequently, Iraq accounted for approximately 14% of the 167 bcm of gas flared globally. This represents not only an acute environmental liability but also a severe economic opportunity cost for a country burdened by chronic electricity deficits and heavy reliance on imported natural gas.[1]

If this associated gas is captured, gathered, and processed efficiently, it could serve as a pivotal domestic energy resource. Assuming standard calorific values and an efficient combined-cycle thermal power generation efficiency of 50–55%, the gas flared in 2025 possessed the theoretical potential to generate approximately 120–133 terawatt-hours (TWh) of electricity annually, corresponding to a continuous baseload generation capacity of 14–15 gigawatts (GW).



A flare burns behind pipes and valves at an oilfield operated by Dhi Qar Oil Company, where associated gas is burned rather than captured for use. Photo credit: Dhi Qar Oil Company.

*The World Bank estimates gas-flaring volumes by using NOAA satellite sensors to detect the heat emitted by flares and converting the measured radiant heat into gas volumes through calibration against metered flare data; its main strength is providing an independent and globally consistent measure, particularly where operator reporting is incomplete. However, these figures are estimates rather than direct field-level measurements and may be affected by cloud cover, flare-detection and site-attribution difficulties, calibration assumptions, and the inability of satellites to distinguish routine flaring from emergency or safety flaring.

Even after adjusting for processing losses, plant maintenance downtime, and industrial feedstock allocation, net recoverable volumes could support generation on a scale capable of fundamentally altering Iraq's power balance.
For context, grid supply peaked at roughly 27–28 GW in 2025 against peak demand estimates of around 60 GW.
The electricity potential of flared gas represents approximately half of peak grid supply, subject to infrastructure availability and operational efficiency.[2]

A comparison with Iranian gas imports underscores the magnitude of this inefficiency. Iraq imported an estimated 6 bcm of natural gas from Iran in 2025 while flaring 24.1 bcm domestically. In effect, Iraq flared more than three and a half times the volume of gas it imports from Iran.

At equivalent conversion efficiencies, imported volumes yield approximately 4 GW of continuous electricity generation capacity (around 34–37 TWh of electricity) , compared with the 14–15 GW potential latent in flared domestic resources.

While complete economic recovery of flared volumes is unfeasible, this disparity highlights a core structural paradox in Iraq›s energy sector: substantial fiscal resources are allocated to imported fuel while a significantly larger domestic energy asset is destroyed.

As the subsequent empirical charts illustrate, upstream crude oil production capacity expanded significantly over the long term, but capital allocation toward associated-gas infrastructure lagged behind. Development prioritized extraction capacity over gas-gathering networks, compression stations, pipeline networks, and processing facilities. Consequently, gas monetization was treated as a secondary byproduct rather than an integrated component of field architecture, as discussed by Kate Dourian in her article Iraq's Energy Paradox: Rich in Gas, Short of Power" elsewhere in this issue of IEO. This operational model maximizes short-term crude revenues while wasting valuable feedstock that could be better used for power generation, petrochemical synthesis, fiscal stabilization, and structural economic diversification.

Iraq's flaring challenge stems primarily from institutional and regulatory failures rather than resource constraints. It reflects persistent coordination breakdowns between upstream expansion schedules and the midstream infrastructure investments required to capture value from associated gas.

Development prioritized extraction capacity over gas gathering networks, compression stations, pipeline networks, and processing facilities.

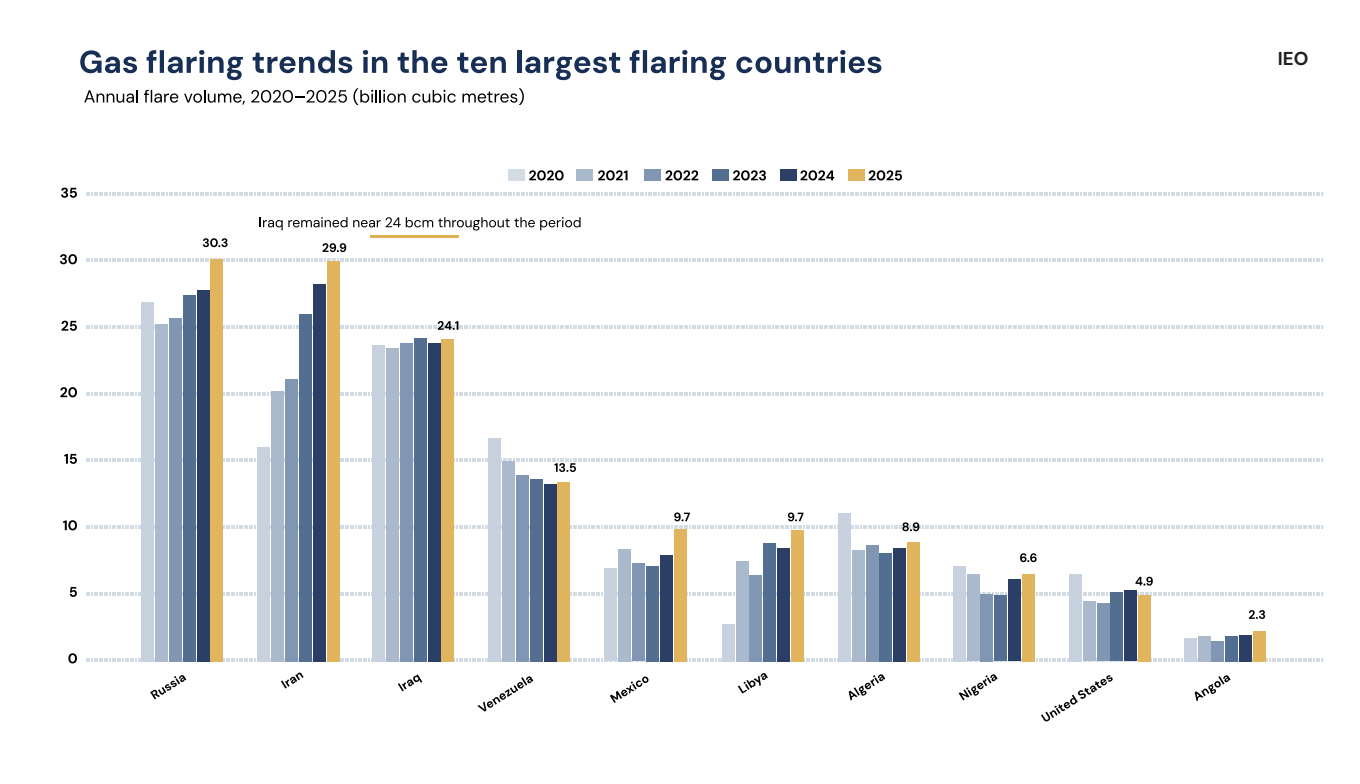
Figure 1 underscores the structural persistence of Iraq's flaring levels. Flare volumes remained stagnant around 24 bcm between 2021 and 2025 (rising slightly from 23.68 bcm to 24.12 bcm), demonstrating that recent investments have yet to produce a sustained downward trajectory.

This is significant because Iraq faces electricity shortages while importing gas to fuel power stations. Economically, flaring destroys a domestic resource that could support electricity generation, industrial activity and lower import expenditure. It also shows that investment in oil production has not been matched by gas-gathering, processing, and transportation infrastructure. Reducing flaring therefore requires enforceable obligations for field operators, transparent measurement and reporting, viable gas pricing, infrastructure planning, and timely project delivery.

Capturing associated gas would strengthen energy security. It could also improve public finances, reduce emissions, and provide fuel for productive sectors. Therefore, flaring reduction is central to Iraq's economic resilience and sustainable development.

Flare volumes remained stagnant around 24 bcm between 2021 and 2025, demonstrating that recent investments have yet to produce a sustained downward trajectory.

Figure 1: Iraq is the world's third-largest gas-flaring country



Source: Authors' compilation and visualization based on World Bank, *Global Gas Flaring Tracker 2026*, and the accompanying *Flare Volume and Flaring Intensity Estimates by Economy,* 2012–2025 dataset. Flaring volumes are satellite-derived estimates.

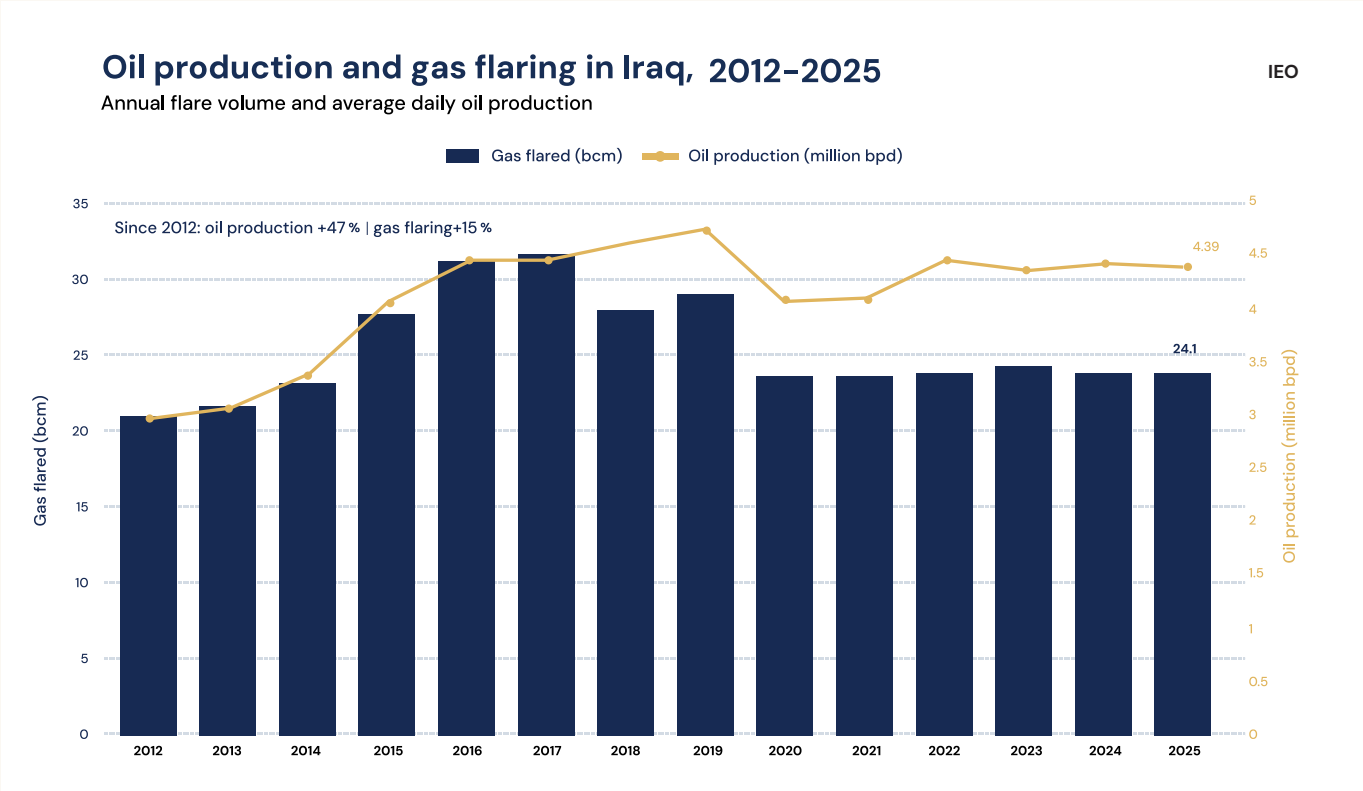
Figure 2 shows that Iraq expanded oil production between 2012 and 2025, from 3.0 million to 4.4 million barrels per day, while gas flaring increased from 21.0 bcm to 24.1 bcm. Flaring peaked above 31 bcm in 2016–2017 before declining, but the improvement has stalled since 2020 at roughly 24 bcm annually.

This divergence suggests that investment in associated-gas capture, gathering and processing has not kept pace with upstream oil development. In the Iraqi context, this is very costly: the country burns a domestic energy resource while facing electricity shortages and relying on imported gas to fuel power plants.

The policy challenge is therefore not simply environmental. It concerns energy security, fiscal efficiency, and industrial development. Future oil projects should incorporate enforceable gas-utilization requirements, clear implementation deadlines, and processing and transmission infrastructure. The Iraqi Oil Ministry recently started incorporating these conditions into contracts awarded for oil field development, and monitoring their practical implementation will be critical.

Mandatory gas-utilization clauses have recently been incorporated into contract terms with international oil companies (IOCs)—most notably deals with TotalEnergies and BP—though structural execution bottlenecks delay immediate operational impact.

Figure 2: Trajectory of oil production and gas flaring volumes



Source: Authors' compilation and visualization based on World Bank, *Global Gas Flaring Tracker 2026*, and the accompanying *Flare Volume and Flaring Intensity Estimates by Economy*, 2012–2025 dataset. Flaring volumes are satellite-derived estimates.

Figure 3 shows some improvement in Iraq's management of associated gas, but not a reduction in waste. Flaring intensity fell by 22% between 2012 and 2025—from 19.3 to 15.1 cubic meters per barrel of oil produced.

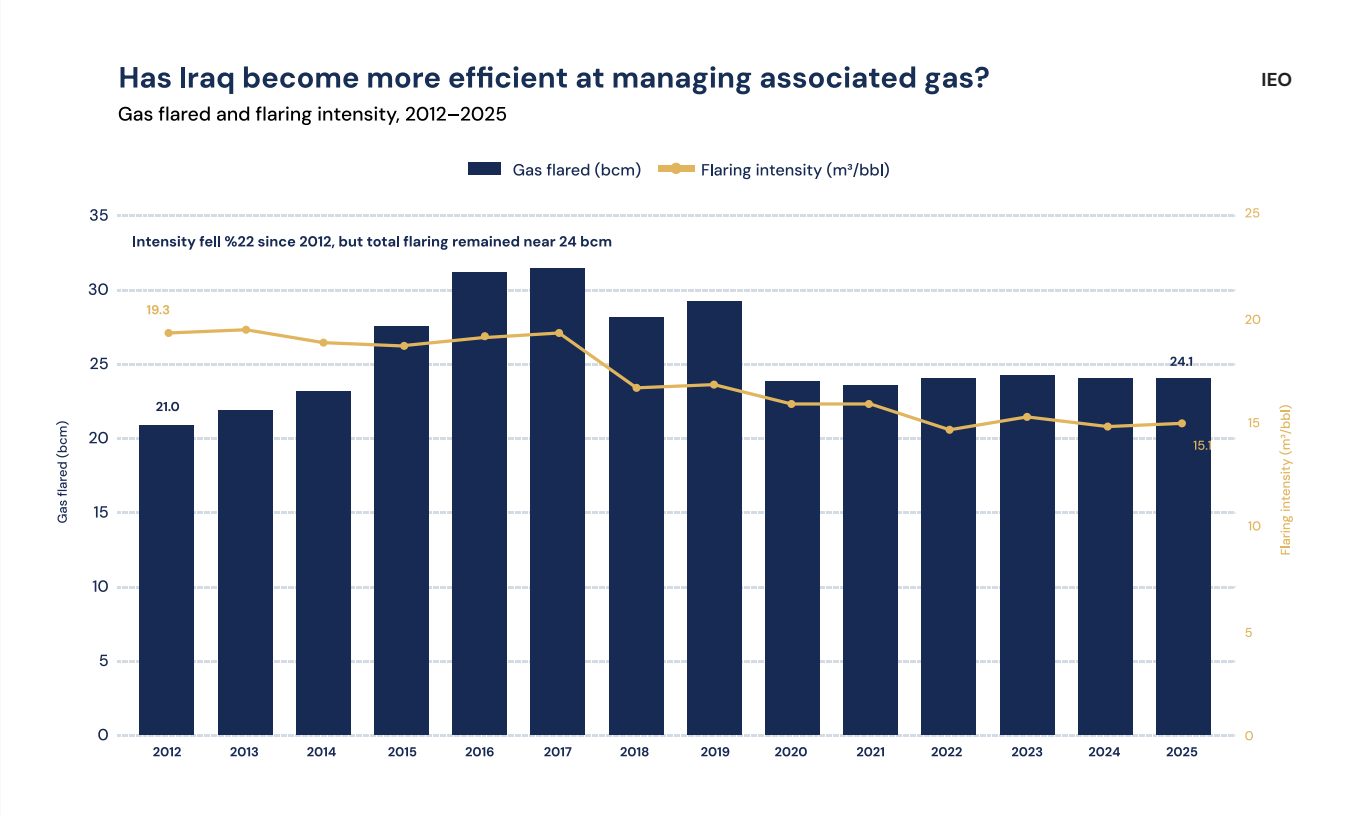
Most of this improvement occurred after 2017, when intensity dropped as oil production remained high while total flaring fell from its 31.5 bcm peak. However, flaring has since stabilized near 24 bcm, meaning Iraq is burning more gas per year than in 2012.

Tracking intensity matters because it separates changes caused by oil-output movements from improvements in gas capture. A declining ratio can therefore coexist with persistently high absolute flaring.

From a policy perspective, Iraq should assess both indicators together. Field-level capture targets, enforceable limits, operator reporting, and investment in gathering, processing, and transmission infrastructure are required. Otherwise, rising oil production may improve intensity without delivering the gas, electricity, fiscal savings, and the emissions reduction Iraq needs.

Mandatory gas-utilization clauses have recently been incorporated into contracts with IOCs, but execution bottlenecks delay immediate operational impact.

Figure 3: Gas flaring intensity has changed over time



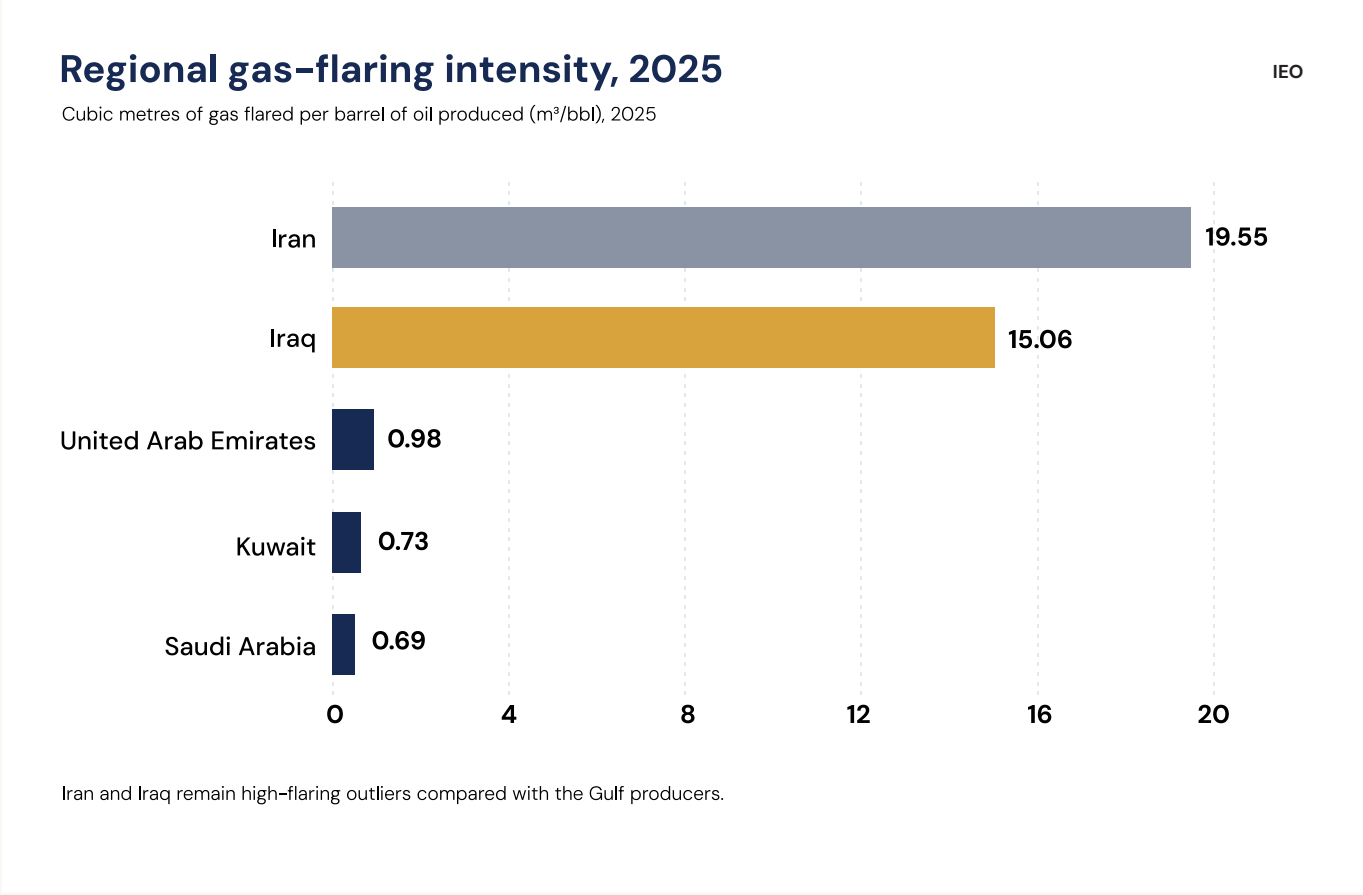
Source: Authors' compilation and visualization based on World Bank, Global Gas Flaring Tracker 2026, and the accompanying Flare Volume and Flaring Intensity Estimates by Economy, 2025–2012 dataset. Flaring volumes are satellite-derived estimates.

The comparison in Figure 4 illustrates a stark dichotomy in regional associated-gas management strategies. Iran recorded the highest flaring intensity at 19.55 m^3 per barrel, followed by Iraq at 15.06 m^3/bbl. While Iraq outperforms Iran, it lags substantially behind the United Arab Emirates, Kuwait, and Saudi Arabia, all of which maintained intensities below 1.0 m^3/bbl.

Crucially, Iraq flared approximately 15 times more gas per barrel than the UAE and over 20 times more than Kuwait and Saudi Arabia. This divergence cannot be attributed to the scale of crude extraction alone; Saudi Arabia produces significantly more oil than Iraq while maintaining far lower flaring intensity per barrel.

Rather, these disparities reflect structural differences in midstream infrastructure investment, regulatory enforcement, and the integration of gas-capture networks into field architecture. For Iraq, this represents a major institutional and policy vulnerability: substantial volumes of valuable domestic energy are flared while the country relies on costly fuel imports and suffers persistent power deficits.

Figure 4: Iraq's gas flaring intensity compared with regional peers



Source: Authors' compilation and visualization based on World Bank, Global Gas Flaring Tracker 2026, and the accompanying Flare Volume and Flaring Intensity Estimates by Economy, 2025–2012 dataset. Flaring volumes are satellite-derived estimates.

Table 1: Where the flared gas is produced

Rank	Field Name	Main Operator Listed by World Bank	Gas Flared (Million m³)	Share of Iraq's Gas Flaring
1	West Qurna 2–Yamama	LUKOIL	4,460.98	18.49%
2	Rumaila	Basra Energy Company	3,888.93	16.12%
3	Bai Hassan	North Oil Company	2,079.11	8.62%
4	West Qurna 1	PetroChina	1,752.85	7.27%
5	Zubair	Basra Oil Company	1,394.98	5.78%
6	Ajil	North Oil Company	1,255.05	5.20%
7	Buzurgan	CNOOC	1,039.08	4.31%
8	Halfaya	PetroChina	1,018.92	4.22%
9	Gharraf	Petronas Carigali	915.92	3.80%
10	Fauqi	CNOOC	818.55	3.39%
11	Ratawi DPC	TotalEnergies	560.30	2.32%
12	Majnoon	Basra Oil Company	504.25	2.09%
13	Kirkuk–Baba Dome	North Oil Company	437.02	1.81%
14	East Baghdad	ZhenHua Oil	366.37	1.52%
15	Kirkuk	North Oil Company	351.77	1.46%
	Top 15 fields combined	**–**	**20,844.08**	**86.40%**
	All other Iraqi fields/sites	Multiple operators	**3,277.64**	**13.60%**
	Iraq total	**–**	**24,121.72**	**100%**

Source: Authors' aggregation and calculations based on World Bank, *Global Gas Flaring Tracker* 2026, and the accompanying F*lare Volume Estimates by Individual Flare Location,* 2025–2012 dataset. Multiple flare locations assigned to the same field were combined. "Others" includes all remaining smaller fields and other flare locations. Field and operator names follow the World Bank's metadata. Values are satellite-derived estimates.

Table 1 shows that Iraq's flaring problem is concentrated in a small number of giant oil fields. The fifteen largest sites account for 86.4% of national flaring, while West Qurna 2 and Rumaila contribute a combined 34.6%.

Six of the top fifteen fields are located in Basra, including West Qurna 2, Rumaila, West Qurna 1, Zubair, Ratawi, and Majnoon. Four others lie in Kirkuk and the northern cluster, including Bai Hassan, Ajil, Kirkuk–Baba Dome, and Kirkuk.

This concentration improves the economic suitability of investment because large gas volumes can support gathering networks, processing plants, pipelines, and power-generation projects. It also permits technology and infrastructure to be deployed at scale.

However, the operator list shows that flaring is not confined to state-managed fields. Fields operated by LUKOIL (up to this February), PetroChina, CNOOC, TotalEnergies, and other IOCs also flare substantial volumes. Policy must therefore impose consistent capture targets, reporting standards, and enforcement requirements across all operators.

What Do the Numbers Tell Us?

The evidence points to a persistent misallocation of Iraq's energy resources. Despite marginal improvements in flaring intensity, the country continues to flare approximately 24 bcm of gas annually while facing severe electricity shortages and relying on costly gas imports. Because 86.4% of flaring is concentrated in just fifteen fields—primarily across Basra and Kirkuk—targeted midstream investments could yield substantial economic and operational returns. Priority should be given to expanding gas-gathering, processing, and transportation infrastructure at these key sites, backed by binding capture targets, transparent reporting, and consistent enforcement across both state-owned and international operators.

Ultimately, curbing gas flaring is more than an environmental imperative; it is a critical economic reform that would bolster national energy security, reduce import dependence, enhance fiscal efficiency, and provide vital feedstock for domestic power generation and industrial development.

Endnotes & References

1. World Bank, "Global Gas Flaring Data," Global Flaring and Methane Reduction Partnership, accessed September 14, 2026, https://www.worldbank.org/en/programs/gasflaringreduction/global-flaring-data.
2. Harry Istepanian, "Iraq's Electricity Sector Caught in a Perfect Storm," Iraq Energy Outlook, no. 2 (August 2026), Dhia Jafar Center for Energy and Natural Resources, American University of Iraq,

ENERGY DEVELOPMENTS IN CONTEXT

Fuel Sector Reform Triggers Political Backlash

BY IEO EDITORIAL TEAM



Iraqi Parliament questions Oil Minister Basim Mohammed Al-Khudhair over the fuel-products crisis, September 20, 2026.
Source: Official Facebook account of the Iraqi Council of Representatives.

What Happened?

On August 18, 2026, Iraq's Council of Ministers approved one of the most significant reform packages for the downstream petroleum sector in decades. The measures aim to improve the financial sustainability of the state-owned refining industry by introducing market-based pricing for crude oil supplied to public refineries, replacing a long-standing arrangement under which crude was sold at a heavily subsidized nominal price. Iraq's explicit fuel subsidies cost around 8 billion USD, or 2.9% of Gross Domestic Product (GDP) in 2025.[1]
The reforms are also intended to reduce wasteful spending, improve the transparency of financial flows within the oil sector, and return a larger share of oil revenues directly to the federal treasury. This comes at a time of continued fiscal pressure following the wartime disruption of crude exports, which saw gross oil revenues collapse from 6.81 billion USD per month in February 2026 to around 900 million USD by May.[2]

The reforms generated an immediate backlash. Within days of the Cabinet's decision, thousands of employees at state-owned refineries in Basra, Baghdad, and Dhi Qar protested against the new pricing mechanism. Workers argued that higher feedstock costs would substantially reduce refinery profitability, threaten employee incentives and profit-sharing schemes, and ultimately weaken the financial position of state refining companies.

The controversy soon spread beyond the refining sector. On September 22, members of the Iraqi Parliament formally urged the government to reconsider the package, particularly its provisions on fuel subsidies and crude pricing, reflecting the growing political sensitivity of the issue.

Why It Happened?

The reform is rooted in Iraq's broader fiscal adjustment strategy. For decades, crude oil supplied to state refineries was transferred at symbolic prices that bore little relation to market values. While this practice kept the cost of refined products artificially low, it also obscured the true economic cost of domestic fuel consumption, reduced transparency within the oil sector, and limited the revenues reaching the Ministry of Finance.

However, this status quo may not be affordable anymore. The export disruption earlier this year left a severe gap: monthly operational spending requirements reached 11.769 trillion IQD (7.85 billion USD at the current exchange rate), while monthly oil revenues recovered to only $1.52 billion by June.[3] Since then, the government intensified efforts to improve fiscal management without raising taxes or cutting public sector employment. Reforming internal pricing arrangements within the petroleum sector offers one of the few opportunities to strengthen public finances while improving efficiency. At the same time, the government chose to retain subsidies on petroleum products sold to consumers, the main component of the 8 billion USD subsidy bill. This created uncertainty over how state refineries will absorb higher crude costs without undermining their financial viability.

Why It Matters for Iraq?

The debate extends far beyond refinery accounting. It reflects the central challenge facing Iraq's economic reform agenda of balancing fiscal sustainability with political acceptability. Economically, more realistic crude pricing is an important step toward greater transparency, stronger budget revenues, and fewer hidden subsidies that distort resource allocation. In the long run, clearer pricing signals could also encourage more efficient refinery operations and provide a sounder basis for evaluating future investment in the downstream sector.

Politically, however, fuel subsidy reform is one of the most difficult policy decisions in Iraq. The rapid reaction by protesters and the parliamentary opposition showed how reforms affecting state-owned enterprises can quickly become contentious, particularly when employees fear declining incomes or future privatization. Without a clear communication strategy and well-defined mechanisms to protect workers' legitimate entitlements, even economically justified reforms risk losing public support.

What to Watch Next?

Attention will now turn to whether the government modifies the package before full implementation. A key question is whether, under the final commercial model governing relations between upstream producers, state refineries and the Oil Products Distribution Company, refineries will continue buying crude at market-based prices or move to a processing-fee model. The final arrangements will determine the effectiveness of the whole reform package.

The government's willingness to engage with refinery management, employees, and Parliament will largely determine whether the reform becomes a sustainable restructuring of Iraq's downstream sector or another example of economic reform that stalls in the face of political resistance. The outcome will be an important indicator of Baghdad's broader capacity to implement structural fiscal reforms while maintaining social and political stability.

Politically, fuel subsidy reform is one of the most difficult policy decisions in Iraq.

Endnotes & References

1. IEO Editorial Team. “Energy in Numbers: The Cost of Energy Subsidies in Iraq.” Iraq Energy Outlook 2 (August 2026): 42.
2. Hussein, Mohammed. “Buying Time: How Baghdad Managed Iraq’s Oil-Fiscal Crisis.” Iraq Energy Outlook 2 (August 2026).
3. Hussein, “Buying Time,”.

Iraq Continues South-to-North Efforts to Expand Oil Exports Through the ITP



A newly built tanker-truck loading platform at the Ahdab oilfield, where crude oil is loaded for transport to storage facilities in Kirkuk for export through the northern pipeline system. Photo credit: Iraq's Ministry of Oil.

What Happened?

Iraq is intensifying its efforts to increase crude shipments through the northern export system as continued disruption in the Strait of Hormuz constrains its dominant southern route. The most immediate measure was to truck crude from Basra to northern infrastructure connected to the Iraq–Türkiye Pipeline (ITP). Under an agreement with SOMO, ONEX started trucking crude oil to the IT1 crude-oil gathering and pumping station in Kirkuk and KAR Group began moving crude from Basra's Zubair-1 depot toward Khurmala in September, with additional loading from Tuba and other locations. The arrangement targets around 5 million barrels per month, equivalent to roughly 165,000 barrels per day (bpd). Plans indicate that volumes could reach around 275,000 bpd.[1]

The trucking operation follows a more significant institutional development. On August 1, SOMO, the North Oil Company, and Türkiye's BOTAŞ signed a one-year agreement allowing Iraqi crude to continue moving through the ITP to Ceyhan after the previous bilateral treaty expired on July 27. The agreement establishes a minimum export quantity of 750,000 bpd, while Iraq and Türkiye negotiate a broader long-term framework[2].

Why It Happened?

The regional war exposed a structural weakness that Iraq had been able to tolerate during normal market conditions. Around 93% of Iraqi crude exports normally depend on the Gulf route, leaving government revenues highly exposed to disruption in the Strait of Hormuz.[3] When southern exports collapsed during the crisis, the northern corridor became Iraq's most credible existing alternative.

The problem is that export infrastructure and production are geographically mismatched. Most of Iraq's spare production capacity is concentrated in Basra and the south, whereas the ITP begins in northern Iraq. Production from Kirkuk and the Kurdistan Region alone is insufficient to utilize the available export capacity, while part of northern production must also supply domestic refineries and power generation.[4] Iraq therefore has export capacity in the north and crude in the south, but lacks sufficient pipeline infrastructure to connect the two.

Why It Matters for Iraq?

What makes the trucking operation economically significant, even if its volumes remain modest compared with Iraq's overall exports, is its total bypass of the Hormuz crisis and ability to reach international markets through Ceyhan on the Mediterranean. If properly conducted, this operation could help lift total northern exports, including crude from fields in the Kurdistan Region and Kirkuk, to as much as 500,000 bpd. It creates a temporary physical link between southern production and the Mediterranean and allows Iraq to monetize crude that might otherwise remain shut in when Gulf exports are constrained.

But trucking is an expensive bridge and not a long-term solution. Moving 150,000–175,000 bpd over hundreds of kilometers requires thousands of tanker movements and remains far below the 750,000 bpd envisaged under the new Türkiye agreement. The commercial terms also matter: the ITP tariff is reportedly about $1.62 per barrel. There are differing accounts over whether Iraq could face charges linked to the 750,000-bpd minimum, even when actual throughput is lower.[5]

The crisis therefore strengthens the economic case for permanent north–south connectivity. The Oil Ministry's planned Basra–Haditha pipeline is designed to move southern crude toward central and northern Iraq and ultimately connect with the ITP, allowing Basra, Maysan, and Dhi Qar production to access Ceyhan. The government has also authorized feasibility work on a broader Basra–Haditha–Kirkuk–Ceyhan corridor.[6]

What to Watch Next?

The immediate question is whether trucking can be scaled sufficiently to push northern exports closer to the new contractual target. More importantly, progress on Basra–Haditha and its connection to the northern system will determine whether Ceyhan becomes a genuine national alternative export corridor or remains a limited emergency outlet. The Hormuz crisis has made the economic rationale clearer: export diversification is no longer simply an oil-sector infrastructure issue; it has become part of Iraq's fiscal and energy security.

If properly conducted, this operation will increase northern exports by up to 500,000 bpd

Endnotes & References

1. "South-to-North Export Trucking Begins." Iraq Oil Report, September 15, 2026.
2. State Organization for Marketing of Oil (SOMO). "Iraq, Turkey Sign Deal to Transport 750,000 Barrels of Iraqi Oil to Ceyhan." Iraqi News, August 2, 2026.
3. Azeez, Shwan Jamal. "Diversifying Iraq's Oil Export Corridors: Strategic Lessons from the Strait of Hormuz Crisis." Iraq Energy Outlook 2 (August 2026).
4. Rawaz Tahir et al., "Turkey Pipeline Deal Sets Challenging Target for Iraqi Oil Exports." Iraq Oil Report, August 5, 2026.
5. Iraqi Ministry of Oil. "النفط: مشروع أنبوب التصدير الاستراتيجي يعزز منافذ العراق بطاقة ٥٢,٢ مليون برميل يومياً" (Oil Ministry: Strategic Export Pipeline Project Enhances Iraq's Export Outlets with Capacity of 2.25 Million Barrels per Day). August 29, 2026.
6. "Iraq Approves Preliminary Agreements to Study Strategic Oil Export Pipeline Projects." Reuters, July 5, 2026.

Fuel Products' Crisis Continues Across Iraq



Tanker trucks transport refined petroleum products from a state-owned refinery to fuel stations.
Photo credit: Iraq's Ministry of Oil.

What Happened?

The fuel shortages triggered by the Strait of Hormuz crisis and the regional war involving Iran, Israel, and the United States continue to disrupt Iraq's domestic petroleum-products market. Initially concentrated in the Kurdistan Region, the shortages subsequently spread to federal Iraq, including the oil-producing provinces of Basra and Kirkuk.[1] By September, long queues formed outside filling stations in Baghdad, Kirkuk, and several southern provinces, while some stations in Basra temporarily closed after running out of gasoline.[2] The crisis has exposed a contradiction in Iraq's energy economy: one of the world's largest crude oil producers is struggling to supply its domestic market with essential petroleum products.[3]

The Kurdistan Region experienced particularly severe price increases during July. Commercial regular grade gasoline prices exceeded 1,300 IQD per liter in some areas, compared with approximately 800 IQD before the crisis, while shortages affected gasoline, diesel, and cooking gas supplies.[4] Regional gasoline consumption is estimated at around 6 million liters per day.[5] In August, the Kurdistan Regional Government (KRG) expanded its subsidized gasoline distribution to 3.5 million liters per day at 750 IQD per liter, covering the difference between the subsidized price and market cost.[6]

Why It Happened?

The immediate causes were disruptions to refinery operations, reduced imports, and difficulties transporting petroleum products across the country. During the regional conflict, refinery shutdowns and operational constraints reduced domestic fuel production, while uncertainty over supplies encouraged precautionary purchasing.[7] Federal Iraq normally consumes approximately 33 million liters of gasoline daily, according to the Oil Products Distribution Company.[8] Maintaining that supply became increasingly difficult as technical problems, distribution bottlenecks, and delayed imports affected the market.[9,10]

In the Kurdistan Region, the crisis was compounded by longstanding disagreements with Baghdad over crude oil allocations and revenue sharing. KRG officials argue that the approximately 50,000 barrels of crude allocated per day for regional consumption are insufficient to meet domestic petroleum-product demand.[11] More fundamentally, Iraq's refining system remains constrained by inadequate storage, limited processing flexibility, and inefficient distribution arrangements. These weaknesses have prevented the country from translating its substantial crude production capacity into reliable domestic fuel supplies.

Why It Matters for Iraq?

The economic consequences extend well beyond motorists waiting at filling stations. Petroleum products are essential inputs for transportation, agriculture, electricity generation, and industrial production. Higher fuel prices increase operating costs throughout the economy, potentially raising the prices of food, transportation, and other essential goods and services. Even where official subsidized prices remain unchanged, shortages impose additional costs through lost working hours, longer journeys to obtain fuel, and reduced business activity.

The crisis also comes after several years of pressure on household purchasing power. Iraq's annual consumer-price inflation averaged 4.4% in 2023, 2.6% in 2024 and 0.3% in 2025, according to International Monetary Fund (IMF) data[12]. Although inflation has moderated, this does not mean that prices have returned to their earlier levels. Renewed fuel shortages could add another round of cost pressures, particularly for households and small businesses with limited capacity to absorb higher energy expenses. The shortages have also complicated the government's efforts to reform petroleum-product pricing. Under the new economic model introduced in 2026, Baghdad sought to reduce inefficient subsidies and improve the commercial arrangements governing refining and distribution. However, the reforms encountered opposition from refinery workers, industrial consumers, and parliamentarians. In September, Parliament called for a review of Cabinet Resolution No. 429, citing its potential effects on production costs, transportation, and household welfare.

The underlying policy challenge is that price reform cannot substitute for reliable supply. Reducing subsidies may improve resource allocation and fiscal efficiency, but implementing such measures during a supply crisis risks increasing costs without addressing the structural causes of shortages. Iraq needs both a more efficient pricing system and sufficient refining, storage, and distribution capacity to ensure that petroleum products reach consumers.

What to Watch Next?

The immediate priority is whether federal and regional authorities can restore stable supplies before winter increases demand for kerosene and other heating fuels. Equally important is whether Baghdad and Erbil can reach more predictable arrangements for crude allocations and petroleum-product distribution.

Over the longer term, the government's ability to implement its new economic model will depend on improving refinery efficiency, expanding strategic storage, and establishing a more transparent subsidy system. Without these structural improvements, Iraq risks continuing to experience domestic fuel shortages even when sufficient crude oil is available within the country.

Endnotes & References

1. "Iraq Faces Renewed Petrol Shortages as Baghdad Queues Return." *Bne IntelliNews*, September 3, 2026.
2. "Gasoline Shortages Shut Filling Stations Across Basra." *Shafaq News*, September 19, 2026..
3. Agence France-Presse. "Iraqis Queue for Fuel as Regional War Disrupts Imports." *Asharq Al-Awsat*, September 5, 2026.
4. "Household Gas Prices Double in Kurdistan after Khor Mor Shutdown." *Rudaw,* July 2026.
5. "Crude Oil Allocated by Baghdad Not Enough to Meet Petrol Demand, KRG Official Says." *Rudaw*, July 2026.
6. "KRG Distributes 3.5 Million Liters of Subsidized Petrol Daily." *Kurdistan24*, August 16, 2026
7. Iraqi Council of Representatives. "The Council of Representatives Discusses Fuel Crisis in Presence of Minister of Oil and Senior Ministry Officials." September 20, 2026. https://iq.parliament.iq/en/2026/09/20/the-council-of-representatives-discusses-fuel-crisis-in-presence-of-minister-of-oil-and-senior-ministry-officials/
8. "Iraqi Oil Minister Says Gasoline Shortage Being Addressed." Kurdistan24, September 2026.https://www.kurdistan24.net/en/story/937255.
9. "Iraq Faces Renewed Petrol Shortages as Baghdad Queues Return." *Bne IntelliNews*, September 3, 2026. https://www.intellinews.com/iraq-faces-renewed-petrol-shortages-as-baghdad-queues-return-465548/.
10. "Iraq Increases Petrol Production to 40 Million Litres Per Day." *PUKmedia*, May 30, 2026.https://www.pukmedia.com/EN/Details/81637.
11. "Crude Oil Allocated by Baghdad Not Enough to Meet Petrol Demand, KRG Official Says." *Rudaw*, July 2026.https://rudaw.net/english/categories/kurdistan/1078513.
12. International Monetary Fund. World Economic Outlook Database. October 2026 edition. Washington, DC: International Monetary Fund, 2026.

Iraq Eyes Higher Oil Exports to Cope with its Fiscal Strains



Workers and officials pose in front of processing equipment at an oil-sector facility in Basra.
Photo credit: Basra Oil Company's Facebook page.

What Happened?

Iraq's draft 2027 federal budget rests on an ambitious recovery in oil exports at a time when the country continues to face severe logistical constraints. The draft assumes exports of around 4 million barrels per day (bpd), including Kurdistan Region crude, at an average price of 58 USD per barrel. With nearly 1 million bpd allocated to domestic fuel consumption, this implies national output of around 5 million bpd. Total expenditures are projected at around 217 trillion IQD (144.6 billion USD), with a forecasted deficit exceeding 40 trillion IQD.[1]

The export assumption is particularly ambitious under current conditions. Iraq's southern exports recovered from around 1.35 million bpd in July to 2.34 million bpd in August, but remained well below the more than 3.3 million bpd exported before the war. In September, southern exports rose further to around 2.8 million bpd and total national exports exceeded 2.96 million bpd, helped by substantial discounts and greater involvement from international oil traders.[2] The recovery nevertheless leaves a considerable gap between current exports and the 4 million bpd assumed in the 2027 budget.

Iraq's ambitions to boost oil production also have implications for its relationship with OPEC+. Iraq has gradually been allowed higher output under the group's 2026 production adjustments, while OPEC+ continues to emphasize compliance with agreed production levels.[3] With the UAE leaving OPEC in May 2026, in part because of years of disagreement over production constraints, questions of national production capacity and market share have become increasingly important for the remaining producers.[4]

Why It Happened?

The underlying driver of this planned production increase is fiscal. With expenditure planned at around 217 trillion IQD and oil still the dominant source of government revenue, Baghdad has a strong incentive to restore export volumes as quickly as possible. The incentive is not new. The IMF already warned before the current conflict that Iraq's fiscal position was highly vulnerable to oil-market shocks and that large expenditure commitments were increasingly difficult to reconcile with available financing.[5]

The war has made that dependence more costly. Iraq has had to offer unusually large discounts to attract buyers and offset shipping risks. SOMO offered discounts of $25–30 per barrel in some August sales, while September transactions included discounts of $15–20.8 per barrel depending on destination.[6] Higher volumes therefore do not automatically translate into proportionately higher fiscal revenues.

Why It Matters for Iraq?

Iraq's challenge is no longer simply how much oil it can produce. It is increasingly about how much it can export, at what cost, and at what realized prices. The Strait of Hormuz disruption has demonstrated that production-capacity does not matter when export infrastructure and market access become the binding constraints. Iraq's heavy dependence on oil makes export assumptions central to fiscal planning.

At the projected export volume, every 1USD increase or decrease in oil prices will raise or lower annual state revenues by 2.16 trillion IQD (1.44 billion USD). At the assumed price, every 100,000-bpd increase or decrease in exports will raise or lower annual state revenues by 3.13 trillion IQD (2.1 billion USD). Meeting the budget projections will also require raising Iraq's OPEC+ production quota from 4.431 million bpd to 5 million bpd. In a postwar market, negotiations over this increase could strain relations with OPEC+ and influence oil prices amid a delicate supply-demand balance.

What to Watch Next?

The immediate test is whether Iraq can move exports toward the 4 million bpd budget assumption. That will depend less on upstream production potential than on the security of the Strait of Hormuz, the recovery of Gulf shipping, and Iraq's ability to expand alternative export routes.

OPEC+ will be another constraint. The group continues to require members, including Iraq, to comply with agreed production levels and compensate for previous overproduction. Securing substantially more production room could therefore require difficult negotiations over market share.

Ultimately, Iraq's 2027 fiscal strategy places considerable weight on an oil-export recovery. Without restored market access and sufficient export capacity, higher production targets alone will do little to close the government's financing gap.

Endnotes & References

1. "Iraq Proposes Oil Price Assumption of $58 per Barrel in Draft Budget." Reuters, October 6, 2026, https://www.reuters.com/business/energy/iraq-proposes-oil-price-assumption-58-per-barrel-draft-budget-2026-10-06/
2. "Vitol Emerges as One of Iraq's Top Crude Buyers, Sources Say." Reuters, September 24, 2026.
3. Organization of the Petroleum Exporting Countries (OPEC). "Saudi Arabia, Russia, Iraq, Kuwait, Kazakhstan, Algeria, and Oman Reaffirm Commitment to Market Stability." press release, September 6, 2026.
4. "Why the UAE No Longer Needs OPEC." Reuters, April 29, 2026.
5. International Monetary Fund, Iraq: 2025 Article IV Consultation—Press Release; Staff Report; and Informational Annex, IMF Country Report No. 25/183 (Washington, DC: International Monetary Fund, 2025), https://www.imf.org/en/publications/cr/issues/2025/07/11/iraq-2025-article-iv-consultation-press-release-staff-repo rt-and-informational-annex-568569.
6. Iraqi Council of Representatives. "Faihan Discusses Strengthening Public Fund Oversight and Upcoming Budget Challenges with Federal Board of Supreme Audit." September 20, 2026.

AMERICAN UNIVERSITY OF IRAQ, SULAIMANI
زانکۆی ئەمریکی لە عێراق، سلێمانی | الجامعة الأمريكية في العراق، السليمانية



EDITORIAL OFFICE
Dhia Jafar Center for Energy & Natural Resources
American University of Iraq, Sulaimani
AUIS Campus, Building A
Third Floor, Office 36 Phone: 053 511 2008

CONTACT
Email: mohammed.hussein@auis.edu.krd
Phone: +964 770 130 3105

© Dhia Jafar Center for Energy & Natural Resources, 2026
All rights reserved.

VIEWS EXPRESSED ARE THOSE OF THE AUTHORS' AND DO NOT NECESSARILY REFLECT THE VIEWS OF THE CENTER OR AUIS