

# Iraq's Power Problem (Part 1): Persistent Financial and Technical Challenges

by [Noam Raydan \(/experts/noam-raydan\)](#)

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## ABOUT THE AUTHORS



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Brief Analysis

## Diversifying Iraq's energy supplies won't mean much if its power infrastructure is not rehabilitated, and the skewed cost-revenue ratio at the Ministry of Electricity is unsustainable.

Amid sizzling summer temperatures, Iraq's Ministry of Electricity (MoE) announced on July 4 that the power grid had **lost 5,000 megawatts** (<https://www.ina.iq/188730--5-.html>) (MW) of generating capacity, leading to acute outages. The loss was due to reduced natural gas supplies from Iran, a recurring problem that was later resolved following an energy swap deal between the two countries (discussed in [Part 2 of this PolicyWatch \(https://www.washingtoninstitute.org/policy-analysis/iraqs-power-problem-part-2-implications-new-oil-gas-deal-iran\)](#)). Yet even before the loss, the country was generating **around 24,000 MW** (<https://www.ina.iq/187621--24-22-.html>), considerably less than the **estimated 34,000 MW** (<https://www.ina.iq/189053--.html>) needed to meet local demand.

Indeed, Iraq's power sector has suffered heavy damage over the past few decades due to war and other factors. The supply-demand gap keeps widening as technical and commercial losses persist, exacerbated by financial challenges and high-level corruption. Although the solutions are clear, they cannot be implemented without political support, which has not been forthcoming. Recently, the sector has focused on new gas-capture and power-generation efforts—including projects in the just-signed \$27 billion deal with France's TotalEnergies, which the Biden administration [welcomed \(https://www.whitehouse.gov/briefing-room/statements-releases/2023/07/11/statement-from-national-security-advisor-jake-sullivan-welcoming-iraqi-progress-toward-energy-self-sufficiency/\)](https://www.whitehouse.gov/briefing-room/statements-releases/2023/07/11/statement-from-national-security-advisor-jake-sullivan-welcoming-iraqi-progress-toward-energy-self-sufficiency/). Yet if authorities do not couple these projects with serious infrastructure upgrades, the grid will be unable to absorb the new supply, and losses and theft will continue. A proper bill collection system is urgently needed as well to stanch the financial hemorrhage. Unfortunately, ongoing political interference in energy projects threatens to further delay such plans.

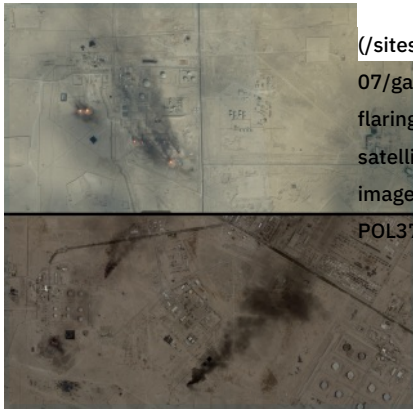
## Financial Problems and Waste

In December 2021, then-minister of finance Ali Allawi [observed \(https://www.youtube.com/watch?v=zUowbqKp7w\)](https://www.youtube.com/watch?v=zUowbqKp7w), “If the power sector doesn't reform itself in the next 3-5 years, there is a possibility that it will destroy the government's budget.” He was referring to the financial imbalance at the MoE, which requires billions of dollars in expenditures while its revenues remain negligible. According to the [International Monetary Fund \(https://www.elibrary.imf.org/view/journals/002/2023/076/article-A002-en.xml\)](https://www.elibrary.imf.org/view/journals/002/2023/076/article-A002-en.xml), the ministry's total explicit operational costs in 2019 were \$9.3 billion (11.0 trillion Iraqi dinars, or 4 percent of GDP), while revenues were less than \$1 billion. The low revenue can be pinned on rampant theft, lack of a proper bill collection system or other cost-recovery measures, and a dilapidated transmission and distribution network. In all, technical and commercial losses [amounted to \(https://iea.blob.core.windows.net/assets/fb1f67b9-3515-4b5a-bb40-06ca0b83ef70/Iraq\\_Energy\\_Outlook.pdf\)](https://iea.blob.core.windows.net/assets/fb1f67b9-3515-4b5a-bb40-06ca0b83ef70/Iraq_Energy_Outlook.pdf) about 50-60 percent as of 2019, “among the highest levels in the world.”

Iraqi sources also indicate that the MoE is relying heavily on the government in several respects: to pay for fuel provided by the Oil Ministry, to fund the power it purchases from [take-and-pay \(https://www.nasdaq.com/glossary/t/take-and-pay-contract\)](https://www.nasdaq.com/glossary/t/take-and-pay-contract) projects run by independent power producers, and to buy fluctuating Iranian energy supplies. For example, the ministry spent \$2.78 billion to purchase Iranian natural gas in 2021 and twice as much the next year, while imported Iranian electricity cost around \$1 billion in 2021.

Meanwhile, Iraq wastes enormous amounts of gas via flaring during crude oil production. According to the World Bank, it is the world's [second-](#)

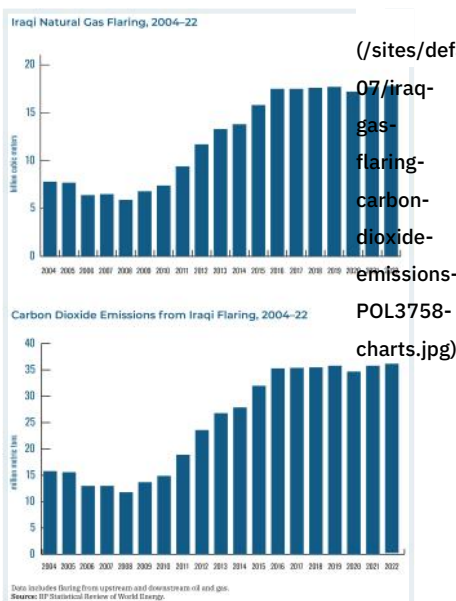
largest gas-flaring country (<https://thedocs.worldbank.org/en/doc/5d5c5c8b0f451b472e858ceb97624a18-0400072023/original/2023-Global-Gas-Flaring-Tracker-Report.pdf>) after Russia. In May, Prime Minister Mohammed Shia al-Sudani **stated** (<https://www.energyintel.com/00000188-4ef7-ddc5-ab9e-eff7a39a0000>) that Iraq flares 1,200 million standard cubic feet per day (MMcf/d) of gas while importing 1,000 MMcf/d from Iran, costing the government at least \$4 billion per year. Moreover, the emissions from flaring are hazardous for Iraqis living close to giant oil fields, and also contribute to climate change by **releasing millions of tons of carbon dioxide and methane** ([https://www.worldbank.org/en/topic/gas-flaring-reduction#:~:text=Gas%20Flaring%20Overview&text=Flaring%20gas%20contributes%20to%20climate,e\)%20as%2083%20million%20cars.](https://www.worldbank.org/en/topic/gas-flaring-reduction#:~:text=Gas%20Flaring%20Overview&text=Flaring%20gas%20contributes%20to%20climate,e)%20as%2083%20million%20cars.)) into the atmosphere.



(/sites/default/files/2023-07/gas-flaring-satellite-images-POL3758.png)

Satellite images of flaring at an oil field in Rumaila, one of several Iraqi installations that regularly waste large volumes of gas in this manner. **Source:** Planet Labs, 2021-22.

Recently, Iraq has accelerated efforts to capture gas partly for use in power plants while also seeking to reduce imports from Iran. These projects include an initiative by the Shell-led Basra Gas Company, as well as the Gas Growth Integrated Project (GGIP), part of the deal that Baghdad recently signed with TotalEnergies. Such projects are welcome news given that Iraq is among the countries most vulnerable to climate change.



(/sites/default/files/2023-07/iraq-gas-flaring-carbon-dioxide-emissions-POL3758-charts.jpg)

Yet if the government does not curb political interference and avoid its habitual contract disagreements during the implementation phase of these projects, they will not help the power sector. According to Wim Zwijnenburg of the Dutch organization PAX, Iraq has taken some steps toward investing in gas capture, but “no international corporation will invest billions in technology if the government is unstable, and with continued security risks and serious corruption problems.” Former Iraqi electricity minister Luay al-Khatteeb summed up all of these problems in comments to the author: “If Iraq continues with this way of dealing with the power sector, it will be hard to fix the electricity sector no matter how much power generation capacity Iraq installs, and no matter how much fuel the government sources.”

## U.S. Sanctions and Waivers

According to MoE spokesman Ahmed Moussa, Iraq needs 55-60 million cubic meters per day of Iranian gas in the summer but has not been receiving that amount. When supplies dropped sharply on July 4, the government attributed the reduction to U.S. sanctions that prevent financial transactions with Iran, while Tehran **blamed it on technical issues** (<https://www.tasnimnews.com/en/news/2023/07/12/2924562/no-halt-to-iranian-gas-exports-to-iraq-official>) due to a **heat wave**

<https://www.tehrantimes.com/news/486718/Electricity-consumption-in-Iran-reaches-new-record-high>.

U.S. waivers allowing Iraq to continue importing energy supplies from Iran have been repeatedly renewed since the Trump administration, justified in part by Iraq's efforts to diversify its energy sources. These efforts include the aforementioned gas capture projects, investments in gas fields, and the [overdue project \(https://www.thenationalnews.com/business/energy/iraq-signs-deal-with-gcc-to-plug-into-gulf-power-grid-in-a-first-1.910668\)](https://www.thenationalnews.com/business/energy/iraq-signs-deal-with-gcc-to-plug-into-gulf-power-grid-in-a-first-1.910668) connecting Iraq's power grid to that of the Gulf Cooperation Council countries.

According to a U.S. source, such waivers are mainly granted to protect the Trade Bank of Iraq (TBI), "since the government pays for Iranian energy supplies by transferring the money to Iranian accounts at TBI." The frequent reductions in Iranian gas supplies have often been blamed on Washington for freezing Iranian funds at TBI, though technical problems and Iranian domestic demand have sometimes caused supply drops as well. On July 9, the Coordination Framework—Iraq's main pro-Iran political alliance—[called on \(https://www.voanews.com/a/iraq-must-settle-gas-import-dues-for-tehran-pro-iran-parties-say/7173576.html\)](https://www.voanews.com/a/iraq-must-settle-gas-import-dues-for-tehran-pro-iran-parties-say/7173576.html) Baghdad to demand that the United States unlock the payments. Previously, as part of its effort to pay Iran for energy supplies, Iraq has sometimes [requested \(https://www.wsj.com/articles/u-s-launches-quiet-diplomatic-push-with-iran-to-cool-tensions-2f45af3\)](https://www.wsj.com/articles/u-s-launches-quiet-diplomatic-push-with-iran-to-cool-tensions-2f45af3) separate U.S. permission to make certain payments on Tehran's behalf, relating to money Iran owes other countries or for purposes such as the Hajj pilgrimage and humanitarian transactions. Washington has been willing to unfreeze funds for these purposes—but only if the payments are made in euros (to prevent misuse of U.S. currency) and transferred directly to the creditors.

Ultimately, however, Baghdad is no longer worried about the U.S. waiver issue because it believes Washington will keep providing them for energy purchases. As Moussa told the author, "Once the waivers expire, they are extended because there is still a need for imported gas; in addition to that, the U.S. side today has become convinced about Iraq's [efforts] to diversify its energy sources." Indeed, Iraq will continue to [rely on Iranian energy imports \(https://www.argusmedia.com/en/news/2331213-iraq-secures-iran-gas-imports-in-preparation-for-summer\)](https://www.argusmedia.com/en/news/2331213-iraq-secures-iran-gas-imports-in-preparation-for-summer) for years.

Again, though, diversification projects will not benefit the broader electricity sector or ease the ministry's shaky finances unless Baghdad also upgrades the relevant infrastructure and adopts the proper [regulatory framework \(https://amwaj.media/article/iq-iraqi-oil-ministry-s-latest-solar-power-announcement-a-new-spin-on-old\)](https://amwaj.media/article/iq-iraqi-oil-ministry-s-latest-solar-power-announcement-a-new-spin-on-old). For instance, the massive [deal with TotalEnergies \(https://totalenergies.com/media/news/press-releases/iraq-agreement-between-iraq-and-totalenergies\)](https://totalenergies.com/media/news/press-releases/iraq-agreement-between-iraq-and-totalenergies) includes developing a 1 gigawatt solar power plant—a promising announcement on paper. Yet the current grid cannot handle substantial new supplies, and additional challenges may arise. As energy expert Harry Istepanian told the author, "Iraq needs all types of renewables," but the unpredictability of weather-dependent options could make them unsuitable for the current "fragile" state of Iraq's grid. In today's situation, he explained, Iraq loses thousands of megawatts each time Iran restricts its gas supplies, making "undervoltage and frequency deviation" major problems in the grid.

## Next Steps

The White House believes Baghdad's recently announced diversification projects will "enhance Iraq's energy security and the reliability of its electricity network" and help the country meet its climate objectives. At the technical, financial, and political levels, however, the country still has a long way to go before even nearing any of these goals. Its power sector is still playing catch-up after years of internal war against the Islamic State—a conflict whose consequences have affected Baghdad's priorities and put many urgent reforms on the back burner. The sector still lacks a proper billing system, power generation is being increased without proper upgrades to the electrical grid, and corruption and political interference in energy matters continue unabated. The power sector cannot be made reliable without addressing these larger problems, particularly in the challenging summer season.

*Noam Raydan recently joined The Washington Institute as a senior fellow. Previously, she was an independent energy researcher and consultant working in Baghdad and Beirut.* ❖

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